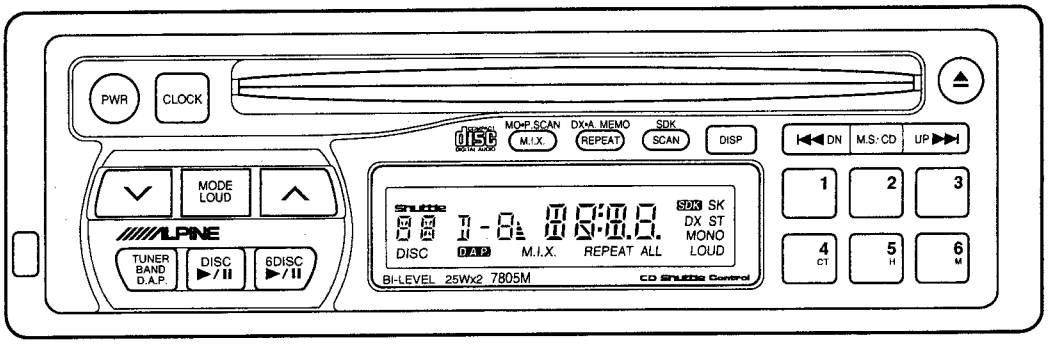
ALPINE®

SERVICE MANUAL

FM/MW/LW/SDK Compact Disc Receiver

COMPACT disc DIGITAL AUDIO

● For the CD player mechanism parts (DP24H01B) of this model, refer to the Service Manual • DP-H Series (68P51097W02).



7805M/7804M

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Spare Schematic Diagram Inserted.

Specifications

<CD SECTION>

System	Optical (Compact Disc system)
Quantizing Bit Number	16 bit Liner system
Channels	2 Channels
Channel Balance (1kHz)	0±3dB
Distortion (1kHz)	0.1%
Frequency Response (Ref. 1kHz)	17Hz : 0±3dB
	127Hz : 0±2dB
	10.007kHz : 0±2dB
	19.997kHz : 0±4dB
S / N Ratio (1kHz)	80dB
Separation (1kHz)	55dB
Noise Level (at Volume Min)	0.1mV
Currents (at PLAY)	1.2A
De-Emphasis (Ref. 1kHz)	4kHz : -20±3dB
	16kHz : -20±3dB

<FM RADIO>

Intermediate Frequency	10.7±0.1MHz
Frequency Range	87.5~108MHz
Usable Sensitivity (Mono at 98.1MHz)	17.2dBf
Limiting Sensitivity (-3dB, at 98.1MHz)	19.2dBf
S / N Ratio (Stereo at 98.1MHz)	56dB
Image Rejection (at 106.1MHz)	40dB
IF Rejection (at 90.1MHz)	60dB
Distortion (Input 1mV at 98.1MHz)	1%
Frequency Response (Ref. 400Hz, at 98.1MHz)	100Hz : 0±3dB
	10kHz : -12±3dB
Stereo Separation (98.1MHz)	20dB
SK Sensitivity (98.1MHz)	25.2dBf

<MW RADIO>

Intermediate Frequency	450kHz
Frequency Range	531~1,602kHz
Usable Sensitivity (20dB S / N, at 999kHz)	34dB
S / N Ratio (at 999kHz)	44dB
Image Rejection (at 1,404kHz)	50dB
IF Rejection (at 603kHz)	60dB
Distortion (at 999kHz)	1.5%
Frequency Response (Ref. 400Hz, at 999kHz)	100Hz : -3±4dB
	4kHz : -12+6, -12dB

<LW RADIO>

Intermediate Frequency	450kHz
Frequency Range	153~281kHz
Usable Sensitivity (20dB S / N, at 216kHz)	41dB
S / N Ratio (at 216kHz)	42dB
Image Rejection (at 270kHz)	40dB
IF Rejection (at 162kHz)	50dB
Distortion (at 216kHz)	1.5%
Frequency Response (Ref. 400Hz, at 216kHz)	100Hz : -3±4dB
	4kHz : -12+6, -12dB

<GENERAL>

Power Supply DC14.4V
Power Output / Impedance ..... 14W / 4ohm
Output Voltage / Impedance ..... 500mV / 10kohm
Semiconductors ..... 23 IC's, 57 Transistors, 25 Diodes, 8 Zener Diodes (○)
22 IC's, 50 Transistors, 28 Diodes, 8 Zener Diodes (●)
Dimensions (W×H×D) ..... Chassis : 178×50×152 mm
Nose : 172×49×22 mm
Weight 1.5kg

NOTE : Due to Continuing product improvement, specifications and designs are subject to change without notice.
○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

INDICATION FOR CD SHUTTLE

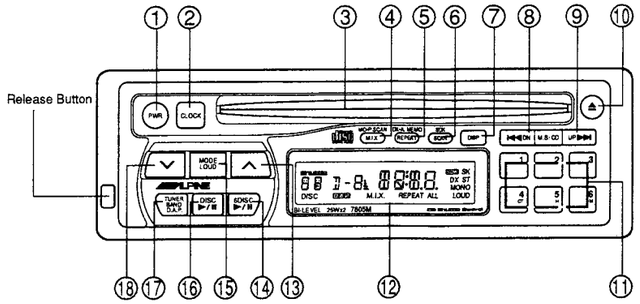
INDICATION	CAUSE	SOLUTION
E-01	Disc-change malfunction.	Press the magazine eject button and pull out the Magazine. Check for indication. Insert the magazine again. If the magazine can not be pulled out, consult your Alpine dealer.
	Magazine ejection impossible.	Press the magazine eject button. If the magazine does not eject, consult your Alpine dealer.
E-02	Disc is in player mechanism.	Press the magazine eject button, and insert an empty magazine.
---H	High temperature.	Will disappear when the temperature returns to operation range.
EEEE	Misconnection or disconnection of CD Shuttle.	Check connection between CD Shuttle and control unit.
----	The magazine is not installed into the CD Shuttle.	Insert a magazine.

FEATURES

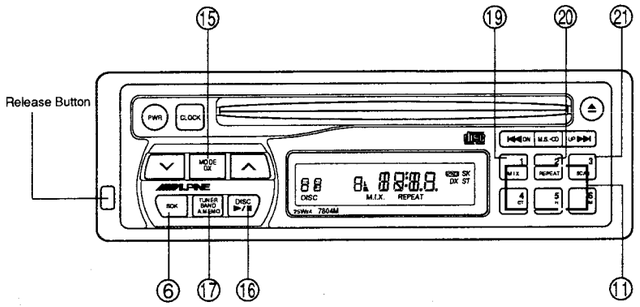
- **FULL FRONT DIN™ CHASSIS**
- **HIGH POWER TUNER COMPACT DISC PLAYER**
- **D.F.P. (DETACHABLE FRONT PANEL)**
- **DIGITAL CLOCK**
- **CD Shuttle™ CONTROL (7805M only)**
- **8-TIMES OVERSAMPLING DIGITAL FILTER**
- **HYBRID I-DAC**
  Alpine's 20-bit Hybrid interpolative DAC combines 1-bit D/A conversion technology (for excellent low level linearity) and a multi-bit D/A converter (for best Dynamic Range, Signal-to-Noise Ratio, and lowest distortion and noise characteristics).
  The result is flawless, accurate performance, outstanding resolution and detail along with superb Dynamic Range.
- **M.I.X. (RANDOM PLAY)**
  The tracks on disc will be played randomly.
- **REPEAT**
  When the repeat button is pressed, the current track will be played back repeatedly.
- **DISC SCAN**
  Locates the beginning of each track and plays the first 10 seconds.
- **A. MEMO (INTELLIGENT AUTO MEMORY)**
  In the Auto Memory mode, the 6 strongest stations in each band will be stored automatically in the memory presets.
- **D.A.P. (DIRECT ACCESS PRESETS) (7805M only)**
  D.A.P. allows the storage of FM, MW and LW presets on the same band, eliminating the need to press the BAND button. Up to 6 FM and MW/LW stations can be mixed in the D.A.P. Band.
- **S.T.M. (SOURCE TONE MEMORY)**
  Automatically memorizes the settings of your Bass/Treble Controls for each source.
- **PRE-AMP OUTPUT (7805M only)**
  Pre-amp output, along with a pre-amp fader, make easy and complete system expansion possible.

CONTROLS AND INDICATORS

< FRONT PANEL>

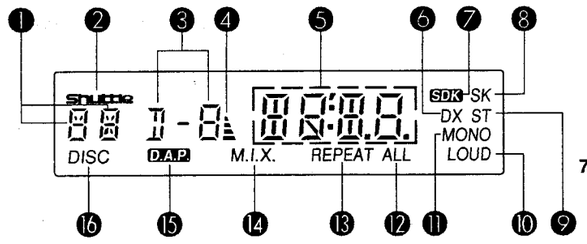


7805M



7804M

< DISPLAY>



7805M

CONTROLS AND INDICATORS

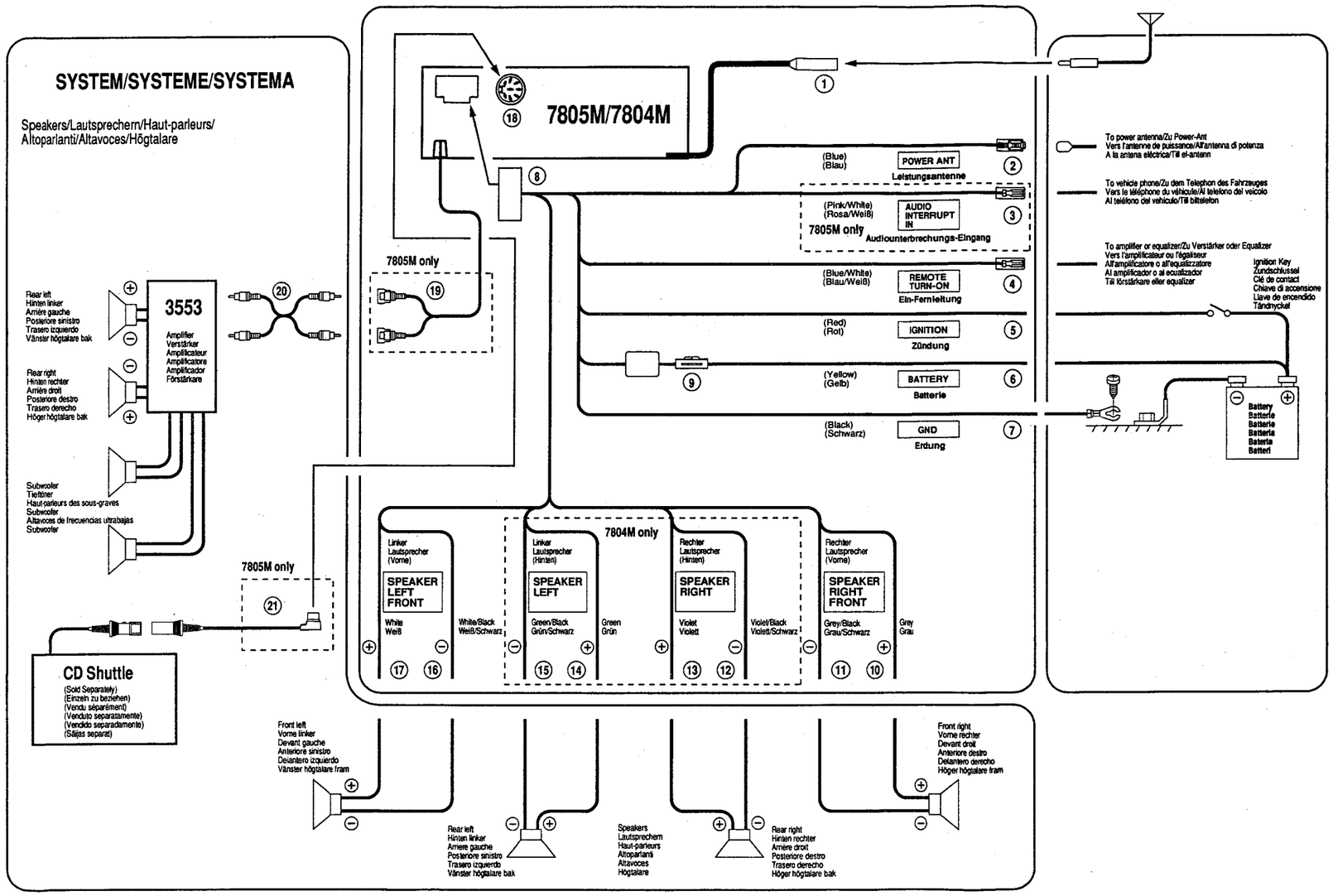
FRONT PANEL

① PoWeR Button
② CLOCK Button
③ Disc Slot
④ MOno/Preset SCAN/M.I.X. Play Button (7805M only)
⑤ DX (Local/Distance)/Auto MEMOry/REPEAT Button (7805M only)
⑥ SDK/SCAN Button (7805M only)
⑥ SDK Button (7804M only)
⑦ DISP Button (7805M only)
⑧ M.S.•CD DowN Switch (⏮)
⑨ M.S.•CD UP Switch (⏭)
⑩ Eject Button
⑪ Station Preset Buttons (No. 1 – No. 6)
⑫ Display
⑬ Audio Up Button
⑭ CD Shuttle (Play/Pause ⏯) Button (7805M only)
⑮ Audio MODE Select Switch/LOUDness Button (7805M only)
⑮ Audio MODE Select Switch/DX (Local/Distance) Button (7804M only)
⑯ DISC (Play/Pause ⏯) Button
⑰ TUNER/BAND/Direct Access Preset Button (7805M only)
⑰ TUNER/BAND/Auto MEMOry Button (7804M only)
⑱ Audio Down Button
⑲ M.I.X. Play Button (7804M only)
⑳ REPEAT Button (7804M only)
㉑ SCAN Button (7804M only)

DISPLAY

❶ Band Indicators
❷ Shuttle Indicator (7805M only)
❸ Preset Channel/Disc Number (7805M only) Indicators
❹ Preset Indicator
❺ Digital Display
❻ DX (Distance) Indicator
❼ SDK Indicator
❽ SK Indicator
❾ ST Indicator
❿ LOUD Indicator (7805M only)
⓫ MONO Indicator (7805M only)
⓬ ALL Indicator (7805M only)
⓭ REPEAT Indicator
⓮ M.I.X. Indicator
⓯ D.A.P. Indicator (7805M only)
⓰ DISC Indicator

Connections



① **Antenna Receptacle**

② **Power Antenna Lead (Blue)**
When loaded with a power antenna, connect to the +B terminal of the power antenna.

③ **Audio Interrupt In Lead (Pink/White) (7805M only)**

④ **Remote Turn-On Lead (Blue/White)**
Connect this lead to the remote turn-on lead of your amplifier or signal processor.

⑤ **Switched Power Lead (Ignition) (Red)**
Connect this lead to an open terminal on the vehicle's fuse box or another unused power source which provides (+)12V only when the ignition is turned on or in the accessory position.

⑥ **Battery Lead (Yellow)**
Connect this lead to the positive (+) post of the vehicle's battery.

⑦ **Ground Lead (Black)**
Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using a sheet metal screw provided.

⑧ **Power Supply Connector**

⑨ **Fuse Holder**
5A (7805M only)
10A (7804M only)

⑩ **Right Front (+) Speaker Output Lead (Grey)**

⑪ **Right Front (–) Speaker Output Lead (Grey/Black)**

⑫ **Right (–) Speaker Output Lead (Violet/Black)**

⑬ **Right (+) Speaker Output Lead (Violet)**

⑭ **Left (+) Speaker Output Lead (Green)**

⑮ **Left (–) Speaker Output Lead (Green/Black) (7804M only)**

⑯ **Left Front (–) Speaker Output Lead (White/Black)**

⑰ **Left Front (+) Speaker Output Lead (White)**

⑱ **DIN Connector (7805M only)**
Connect this to the DIN connector on the CD Shuttle.

⑲ **Rear Output RCA Connectors (7805M only)**
RED is Right and WHITE is Left.

⑳ **RCA Extension Cable (Sold Separately)**

㉑ **DIN Extension Cable (7805M only)**
NOTE:
Connector shape of the DIN Extension cable supplied with the CD Shuttle may be not "L" shape. With this type of cable, connection may be difficult at a certain mounting location. In such a case, please get a 4910o2 Adaptor (Sold Separately) for easy connection.

OPERATION

● HANDLING THE DETACHABLE FRONT PANEL

Removal

1. Press the PWR button ① to turn the power off.
2. Press the Release button. (Fig. 2)
3. The detachable front panel pops out. Grasp part of it and pull it off. (Fig. 3)

NOTE:

After removing the detachable front panel, place it in the carrying case and protect it from strong shocks and dirt.

Installation

1. Check that there is no dirt, etc., in the grooves on the ends of the detachable unit. Insert the right side of the detachable panel first, as shown in Fig. 4.
2. Press on the detachable front panel at a point other than the button surface on the left side until a click is heard. (Fig. 5)
3. Touch the detachable front panel and check that it is securely fastened.

NOTE:

Be sure to check that there is no dirt, dust, etc., on the connector terminals for the detachable face and unit before installing it.

(For example: 7805M)

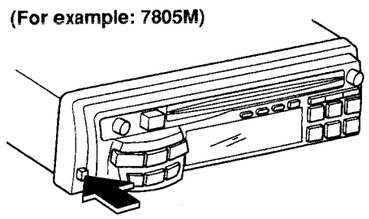


Fig. 2

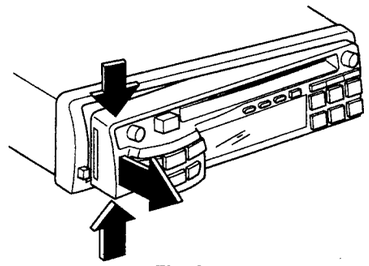


Fig. 3

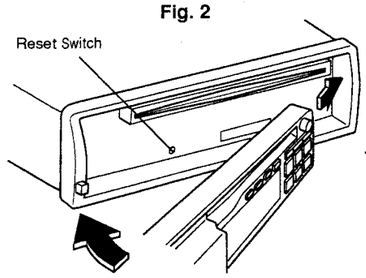


Fig. 4

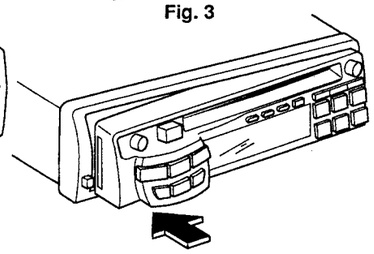


Fig. 5

OPERATION

● BASIC OPERATION

Initial System Start

Remove the detachable front panel, and the Reset switch can be found. (Fig. 4)
Press this switch first, whether operating the system independently or combining the system with the changer. In this case, a noise may occur, so temporarily set the sound volume control on the head unit to zero.

How to Adjust the Volume and Tone (Refer to the diagram below.)

1. Turn On the system by pushing the PWR button ① or any other button (other than Eject ⑩ or CLOCK ②).
2. Press the Audio MODE Select switch ⑮ to select each adjusting mode.

┌→ TRE → BAS → BAL → FAd → VOL ─┐

Each time this switch is pressed, the mode changes. The mode is indicated in the display. The mode indicator changes as each mode is selected.

3. While each mode indicator is ON, press the Audio Up button ⑬ or Down button ⑱ 5 seconds after adjusting, the indication returns to VOL. The Audio Up button ⑬ and Audio Down button ⑱ then operate to adjust the volume only.

	VOLUME	TREBLE	BASS	BALANCE	FADER
Audio Up Button ⑬	UP	BOOST	BOOST	Left-ch Decreases	Rear-ch Decreases
Audio Down Button ⑱	DOWN	CUT	CUT	Right-ch Decreases	Front-ch Decreases

Power Off

Press the PWR button ① to turn the unit Off.

Cautions During CD Playback

Playing a disc while driving on a very bumpy road may result in skipping, but this will not scratch the disc or damage the player.

Loudness (7805M only)

1. Press and hold the LOUD button ⑲ for more than 2 seconds to activate the loudness function.
2. Press and hold the LOUD button ⑲ for more than 2 seconds again to defeat this feature.

OPERATION

Mode Switching of the 7805M/7804M

1. Radio Mode
   Press the BAND button ⑰ to put the unit into the radio mode.
   The Band indicator ❶ (FM1, FM2 or MW/LW) will appear in the display.
2. CD Mode
   Press the DISC button ⑯ to put the unit into the CD mode.
3. CD Shuttle Mode (7805M only)
   Press the CD Shuttle button ⑭ to put the unit into the CD Shuttle mode.

NOTES:

1. Your player accepts only one disc at a time for playback. Do not attempt to load more than one disc. The DISC indicator ⑯ will be lit to show that a disc is currently loaded in the player.
2. Make sure the label side is facing up when you insert the disc. Your player will automatically eject any disc that is inserted incorrectly. If the player continues to eject a correctly inserted disc, push the Reset switch with a pointed object such as a ball-point pen.
3. You can play 8 cm CDs in this player without using an adaptor ring.
4. Make sure your discs are labeled as shown below:

COMPACT disc DIGITAL AUDIO

5. Playing a disc while driving on a very bumpy road may result in skipping, but this will not scratch the disc or damage the player.

S.T.M. (Source Tone Memory)

The Bass and Treble controls can be individually set for each source (FM, MW/LW, and CD). Once set, their positions are automatically memorized. Whenever the source is reselected, the Bass and Treble controls will return to your preset configuration.

Four preset volume levels can be set for traffic information reception in the SDK mode.

1. Press the PWR button ① for more than 2 seconds.
2. Press the Preset button ⑪ No. 2 to switch "LV-4" to "LV-1". Select the desired level.

OPERATION

● **RADIO OPERATION**

Tuning Band Selection

Press the BAND button ⑰ to select the desired tuning band. The Band indicator ❶ shows your selection.

Local/Distance (DX) Seek Sensitivity for FM, MW and LW

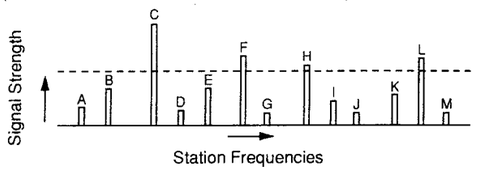
You can select the radio seek sensitivity (local or distance (DX)), by pressing the DX (distance) button.

7805M: Press the DX (distance) button ⑤.

7804M: Press and hold the DX (distance) button ⑮ for more than 2 seconds.

In the local mode, with no DX indicator ❻, the radio tunes in only strong stations (stations C, F, H and L in the illustration).

In the distance mode, with DX indicator ❻, the radio tunes in both strong and weak stations (all stations from A to M in the illustration).



Manual and Auto Seek Tuning

Stations can be tuned in using the procedures described below.

1. Select the tuning band (FM1, FM2, MW or LW) with the BAND button ⑰. The Band indicator shows your selection.

   → F1 → F2 → MW → LW →

2. Decreasing the frequency:
   The frequency is decreased by one step each time the DN switch ⑧ is pressed. By pressing and holding the switch for at least 0.5 seconds, the unit will automatically tune the first station it finds in the direction of decreasing frequency.
3. Increasing the frequency:
   The frequency is increased by one step each time the UP switch ⑨ is pressed. By pressing and holding the switch for at least 0.5 seconds, the unit will automatically tune to the first station it finds in the direction of increasing frequency.

OPERATION

Preset Memory Programming

Follow the instructions below to program stations into preset memory:

1. Select the tuning band (FM1, FM2, MW or LW) with the BAND button ⑰.
2. Tune in your desired station using manual or auto seek tuning.
3. Press the Preset button ⑪ No. 1 for more than 2 seconds.
4. The preset indicator ❹ and the Digital display ❺ will begin to blink. Press that Preset button again while the display is blinking (within 5 seconds).
5. The frequency you selected will be placed into preset memory No. 1 and will appear in the display.
   NOTE:
   If a preset memory has already been set in the same address, it will be cleared and the new station will be memorized.
6. Follow steps 2 – 4 for the remaining presets (2 – 6). Use this procedure for FM1, FM2, MW and LW.

Preset Scan (7805M only)

In the radio mode, this feature locates the six radio stations preset in memory on each band (MW/LW, FM1, FM2 or D.A.P.) and plays 10 seconds for each station in numerical order from the Preset No. 1 to No. 6 until the preset scan mode is deactivated. For FM presets it will scan FM1, then FM2 and continue to cycle between these two bands.

When a preset station (No. 1 through No. 6) is being received, pressing the P. SCAN button ④ for more than 2 seconds activates the preset scan mode. Scanning begins with the next preset station. The preset scanning continues in order until this mode is deactivated by pressing the P. SCAN button ④ for more than 2 seconds, one of the Preset buttons ⑪, UP switch ⑨, DN switch ⑧, DISC (▶/II) button ⑱ or TUNER/BAND button ⑰ for a second time.

When a station not stored in the preset scan memory is being received, pressing the P. SCAN button ④ for more than 2 seconds activates the preset scan mode and scans starting with "No. 1" on the same band you were receiving.

NOTE:

When the frequency of the preset memory station is weak, the preset scanning moves to the next preset memory station at once.

Auto Memory Preset

1. Select the desired tuning band (FM1, FM2, MW or LW) with the BAND button ⑰. The Band indicator shows your selection.
   NOTE: (7805M only)
   The auto memory preset procedure is allowed in the D.A.P. mode.
2. Press the A. MEMO button for over 2 seconds.
   7805M: A. MEMO button ⑤
   7804M: A. MEMO button ⑰

OPERATION

3. The tuner will automatically seek the 6 strongest stations in the selected band and memorize them in order of their signal strength. These stations are automatically placed in the preset memory with the strongest station in preset No. 1 and the 6th strongest station in preset No. 6. When seeking stations, the tuner first seeks in the local tuning mode. If less than 6 stations are memorized, the tuner seeks again in the distance (DX) mode.
4. After finishing the auto memory preset, the tuner goes to the station placed in preset memory No. 1. If no stations are memorized, it returns to the original station you were listening to before the auto memory preset procedure began.

NOTE:

The SDK button operation will not be allowed in the Auto Memory mode.

Preset Tuning

After the preset stations have been memorized, you can tune in your desired station (within the band displayed) with one touch of a button.

1. Select the tuning band (FM1, FM2, MW or LW) with the BAND button ⑰.
2. Press any one of the Preset buttons ⑪ and the number of that preset will appear in the preset channel indicator ❸.
3. The frequency of the station placed in the selected preset location will appear in the display.

D.A.P. (Direct Access Preset) (7805M only)

This feature allows the storage of FM, MW and LW presets on the same band.

1. Press the D.A.P. button ⑰ to light up the D.A.P. indicator ⑮.
2. To program stations into the D.A.P. band, follow steps 1 – 4 as described in the Preset Memory Programming section.

Accessing the D.A.P. Presets (7805M only)

1. Press the D.A.P. button ⑰ for more than 2 seconds. The D.A.P. indicator ⑮ will illuminate in the display.
2. Press one of the Preset buttons ⑪.
3. The frequency of the station placed in the selected D.A.P. location will appear in the display.

Automatic FM Stereo/Monaural Switching

The unit automatically switches from the stereo to monaural mode and the ST indicator ❾ disappears if the FM signal becomes weak to reduce the noise level. automatically switches back to the stereo mode when the FM signal becomes strong and the ST indicator ❾ appears.

OPERATION

Traffic Information Receiving

This model is equipped with traffic information receiving apparatus to be used in Germany where the traffic information is broadcast in FM. The following is how to use this unit to receive traffic information broadcasting.

1. Select FM position.
2. Depress the SDK button ⑥ and tune to a station. If the station is a traffic information station, the SK indicator ❽ will glow and show the reception of a broadcast from a traffic information station.
   NOTE: SK Indicator
   When SK signal is received irrespective of the SDK button position, the SK indicator will illuminate.
3. In the SDK mode, stations other than traffic information stations are muted and cut out. Therefore, it is easy to select a traffic information station.
4. As the signal of the tuned traffic information station becomes weak, the SK indicator will extinguish. Then after the lapse of 25 seconds, a rhythmical alarm will sound or another stronger station will be sought automatically depending on the mode selected. If the reception of further traffic information is required, tune in the desired traffic information station. When received, the alarm will stop and the SK indicator illuminates. Since the alarm will continue if no signals from any other traffic stations can be received, release the SDK button for reception of normal broadcasting.
5. When the unit is playing a CD with the SDK button pushed in and tuned to a traffic information station, the CD play is interrupted and changed to FM radio if the pre-tuned station begins a traffic information message. When the message is over, the unit reverts to CD play automatically.
6. If traffic information reception is no longer necessary, release the SDK button for normal radio reception.

NOTE:

When the SDK button is pressed and there is no SK signal, ALARM will sound after the lapse of 25 seconds. Press the SDK button again to stop it.

NOTES:

1. The SDK button operation will not be allowed in the Auto Memory mode.
2. When the Auto Memory function is activated during CD play mode with the SDK indicator ON, "DISC" will be displayed. But the SDK button operation will not be allowed for the Auto Memory function activated.
   Press the TUNER button to display that the Auto Memory function is ON.

OPERATION

● **CD OPERATION**

Normal Play

1. Load the Disc.
2. The digital display ❺ will show " T-00 " for a second, then " T-01 " will be displayed and the first track on the disc will begin playback.
3. After the last track on the disc is played back, the pickup will return to the beginning of the first track of the disc and begin playback from that point.

Pause

While the disc is playing, press the DISC (▶/II) button ⑯ to temporarily stop playback. The digital display ❺ will show "PAU". To resume playback, press the DISC (▶/II) button ⑯ again.

Track/Elapsed Time Display Switching (7805M only)

Press the DISP button ⑦ to toggle the digital display ❺ between the Track Number (of the current selection) and the Elapsed Time (for the current selection). See below.

T - 03	8 ' 35
Track Mode	Time Mode

Music Sensor (Skip)

This feature allows you to access the beginning of your musical track selection simply and quickly. It is functional in the play or pause mode. The Track No. indicator shows the track number you have selected.

* To advance to the next track on the disc, press and release the (▶▶I) side of the M.S•CD switch ⑨.

1. Playback stops, the pickup moves up to the beginning of the next track. That track number appears in the digital display ❺.
2. Playback begins immediately.
3. If you wish to access a track further ahead on the disc, continue pressing and releasing the (▶▶I) side of the M.S•CD switch ⑨ until you reach the track of your choice.

* To replay the track that is currently playing, press and release the (I◀◀) side of the M.S•CD switch ⑧.

1. Playback stops, the pickup moves back to the beginning of the current track. The track number in the digital display ❺ remains the same.
2. Playback begins immediately from the beginning of the track.
3. If you wish to access a track further towards the beginning of the disc, continue pressing and releasing the (I◀◀) side of the M.S•CD switch ⑧ until you reach the track of your choice.

OPERATION

Fast Forward/Fast Backward

The Fast Forward/Fast Backward feature works in both play and pause modes.

1. To rapidly move the pickup forward, press the M.S. UP (▶▶I) switch ⑨ and hold it down for more than one second while scanning begins.
2. To rapidly move the pickup backward, press the M.S. DN (I◀◀) switch ⑧ and continue holding it down while the unit scans.
3. Continue holding the UP (▶▶I) ⑨ or DN (I◀◀) ⑧ switch until you reach the point where you want to resume playback, then release the switch.
4. When the pickup reaches the end of the disc, it automatically returns to the beginning. Playback will then start from the beginning of the disc.

REPEAT (One)

This feature allows you to continuously playback a single track.
7805M: REPEAT button ⑤
7804M: REPEAT button ⑳

1. Press the REPEAT button. The REPEAT indicator ⓭ will illuminate.
2. The musical track shown in the display will be played back repeatedly.
3. To defeat the repeat function, press the REPEAT button a second time.

Disc Scan

7805M: SCAN button ⑥
7804M: SCAN button ㉑

Press this button (for more than 2 seconds: 7805M only) and the unit will playback the first 10 seconds of each track in succession. This function is useful in searching ahead on a disc for a specific selection. Pressing the SCAN button a second time deactivates this function.

M.I.X. (Random Play)

7805M: M.I.X. button ④
7804M: M.I.X. button ⑲

Press this button while the unit is in the play or pause mode. Musical tracks on the disc will be played back in a random sequence generated by the microprocessor. After all the tracks on the disc have been played back once, the player will begin a new random sequence.

OPERATION

● **CD SHUTTLE OPERATION (7805M only)**

The following instructions apply only to systems that incorporate the Alpine CD Shuttle with the 7805M.

Turn the unit On and access the CD mode by pressing the CD Shuttle (▶/II) button ⑭. The Shuttle indicator ❷ will illuminate in the display.

Normal Play

1. Press the CD Shuttle (▶/II) button ⑭.
2. The first disc will begin playback.
3. After the last track on the last disc is played back, the pickup will return to the beginning of the first track of the first disc and begin playback from that point.

Pause

While the disc is playing, press the CD Shuttle (▶/II) button ⑭ to temporarily stop playback. To resume playback, press the CD Shuttle button (▶/II) ⑭ again.

Disc Select

1. Press the Preset buttons ⑪ to select from discs 1 – 6. The number of disc selected will appear in the display.
2. Press the M.S.•CD ⑧ or ⑨ switch for musical track selection.

Music Sensor (Skip)

This feature allows you to access the beginning of your musical track selection simply and quickly. It is functional in the play or pause mode. The track No. Indicator shows the track number you have selected.

- To advance to the next track on the disc, press the UP switch ⑨.

1. Playback stops, and the pickup moves up to the beginning of the next track. That track number appears in the track No. indicator.
2. Playback begins immediately.
3. If you wish to access a track further ahead on the disc, continue pressing and releasing the UP switch ⑨ until you reach the track of your choice.

- To replay the track that is currently playing, press and release the DN switch ⑧.

1. Playback stops, and the pickup moves back to the beginning of the current track. The track number in the track No. indicator remains the same.
2. Playback begins immediately from the beginning of the track.
3. To access a track further towards the beginning of the disc, continue pressing and releasing the DN switch ⑧ until you reach the track of your choice.

OPERATION

Fast Forward/Fast Backward

The fast forward/fast backward feature works in the play mode only.

1. Press either the M.S.•CD ⑧ or ⑨ switch and hold it down for more than 1 second.
2. To move the pickup forward rapidly, hold down the UP switch ⑨.
3. To move the pickup backward rapidly, hold down the DN switch ⑧.
4. Release the switch when you get to the desired position on the disc.
5. When the pickup reaches the end of the disc, it will begin playback from the beginning of the first track on the next disc.

REPEAT (One/All)

This feature allows you to continuously repeat a single track or one entire disc.

To Repeat a Single Track

1. Locate the music track of your choice using the UP ⑨ or DN ⑧ switch.
2. Press the REPEAT button ⑤. The REPEAT indicator ❸ will illuminate.
3. To stop repeat play, press the REPEAT button ⑤ twice.

To Repeat an Entire Disc

1. While playing a disc, press the REPEAT button ⑤ until the REPEAT ❸ and ALL ❼ indicators illuminate.
2. The disc will be played back repeatedly.
3. To stop repeat play, press the REPEAT button ⑤ once. The indicator illumination will be off.

Disc Scan

This function plays the first 10 seconds of each track in succession. This function is useful in searching ahead on a disc for a specific selection.

1. In the play mode, press the SCAN button ⑥ (for more than 2 seconds) to activate the Disc scan function.
2. Pressing the SCAN button ⑥ (for more than 2 seconds) a second time deactivates the function.

M.I.X. (Random Play)

Press the M.I.X. button ④ while the unit is in the play or pause mode. Musical tracks on the selected disc will be played back in a random sequence generated by the microprocessor. After all the tracks on the disc have been played back once, the player will begin a new random sequence.

OPERATION

● **CLOCK OPERATION**

To display the time

1. Press the CLOCK button ②. The display will show the time.

NOTE:

As long as the vehicle's ignition is ON, the time will be shown in the display even if the power has been turned off by the unit's PoWeR button ①.

2. To return off to the normal information display, press the CLOCK button ② again.

Clock Priority display function

When the CLOCK button ② is pressed to display the time, the Clock Priority mode is automatically set.

In this mode, the time will always be shown until another operation (FM, MW/LW or CD) is performed. At this time, information concerning the operation will be shown in the display. If no other action is taken after about 5 seconds, the display will return to the showing the time.

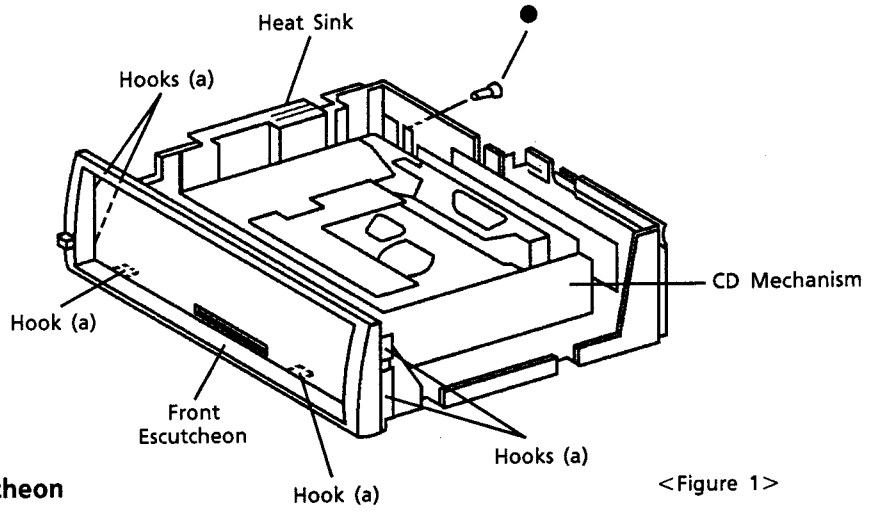
Setting the Time

1. Press and hold the CLOCK button ② for at least 3 seconds to enable the time adjust mode. The time display will blink when ready for setting.
2. Adjusting the hours:
   Use Preset No. 5 ⑪ to adjust the hours.
3. Adjusting the minutes:
   Use Preset No. 6 ⑪ to adjust the minutes.
4. Initializing the minutes and seconds:
   Pressing Preset No. 4 ⑪ will set the minutes and seconds to zero.

Disassembly Instructions

1. Removal of Nose Unit

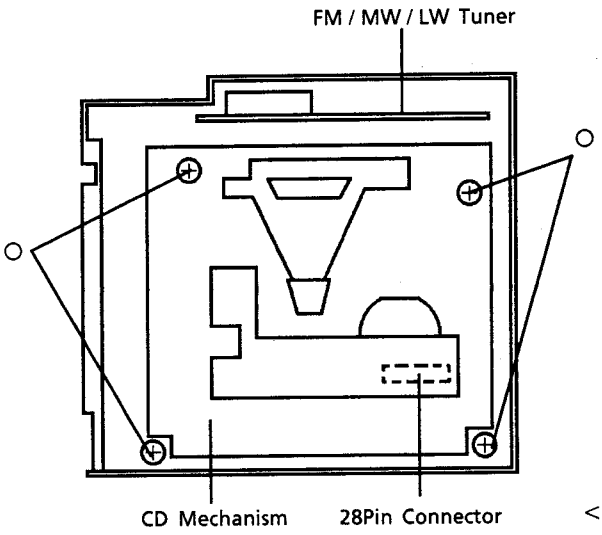
(1) Refer to the Detachable Front Panel (Page 9).



<Figure 1>

2. Removal of Front Escutcheon

(1) After removal of Top Cover, remove six Hooks (a) as shown in Figure 1.



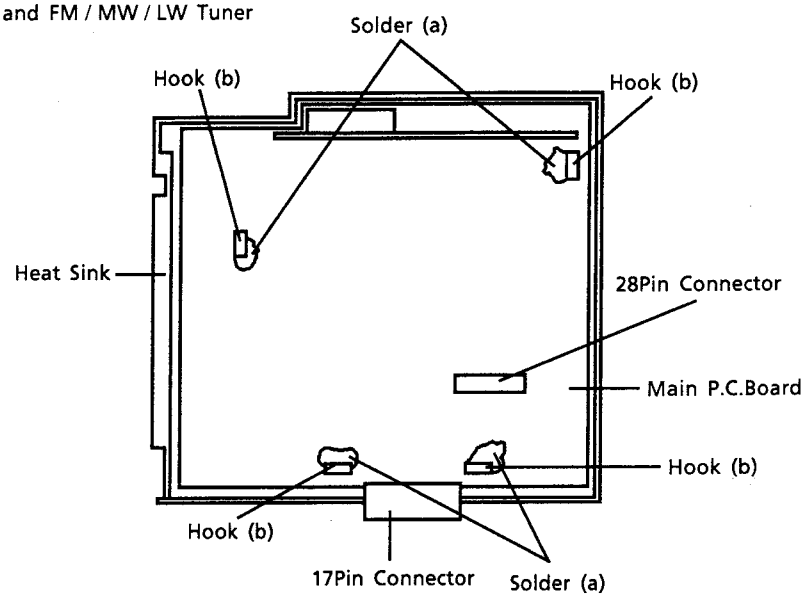
<Figure 2>

3. Removal of the CD Mechanism

(1) After removal of the Front Escutcheon, remove four screws marked "○" as shown in Figure 2.
(2) Disconnect one connector (28 Pin) from the CD Mechanism.

4. Removal of Main P.C.Board

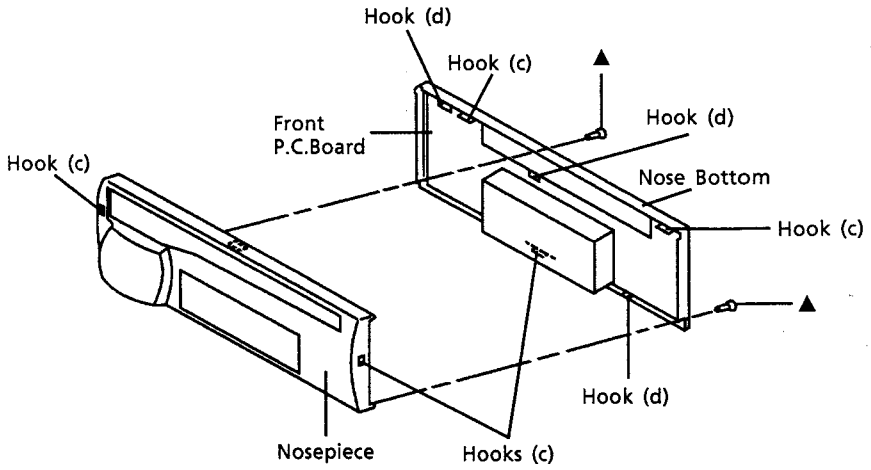
(1) After removal of the CD Mechanism, remove Solder (a) and four Hooks (b) as shown in Figure 3.
(2) Remove a screw marked "●" as shown in Figure 1.
(3) Main P.C.Board with Heat Sink and FM / MW / LW Tuner can be removed completely.



<Figure 3>

5. Removal of Front P.C.Board

(1) After removal of Nose Unit, remove two screws marked "▲" and five Hooks (c) as shown in Figure 4.
(2) Remove three Hooks (d) as shown in Figure 4.

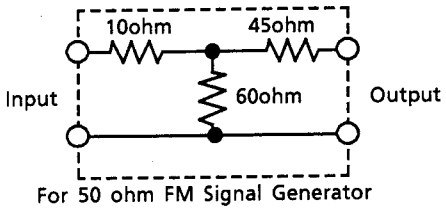


<Figure 4>

Adjustment Procedures

1 FM SECTION

(1) Dummy Antenna Circuit



For 50 ohm FM Signal Generator Figure 5

(2) Connections

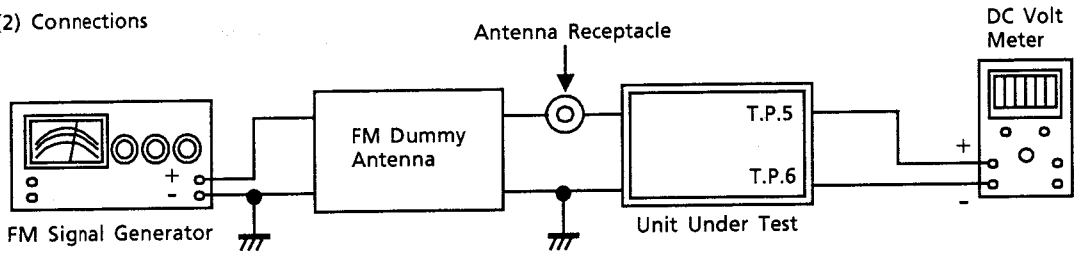


Figure 6

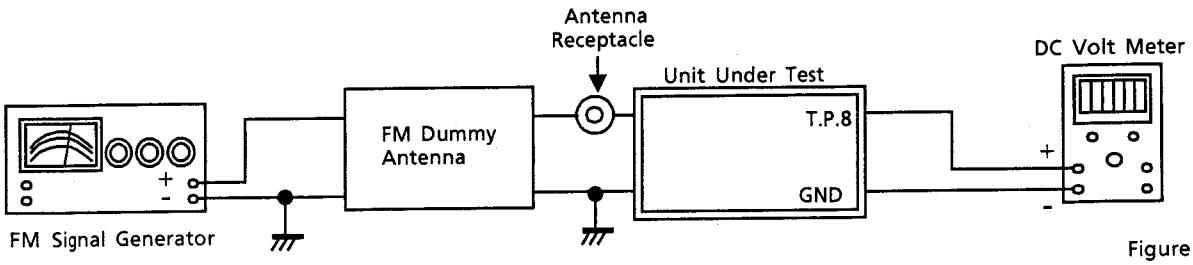


Figure 7

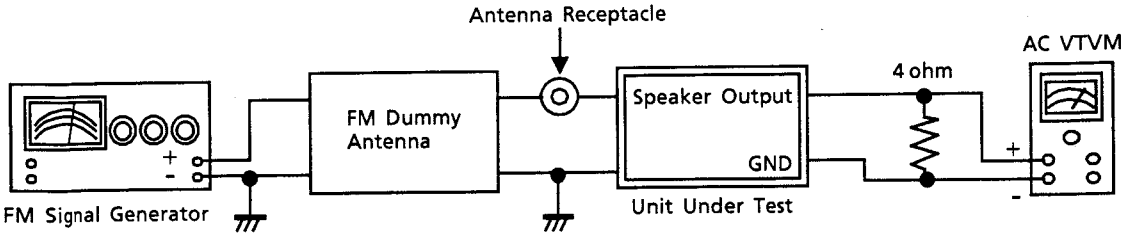


Figure 8

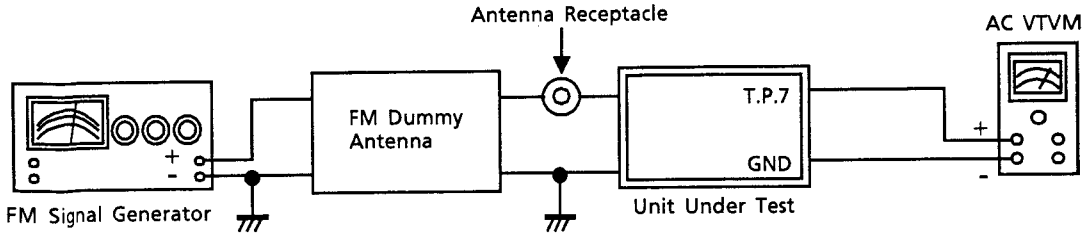


Figure 9

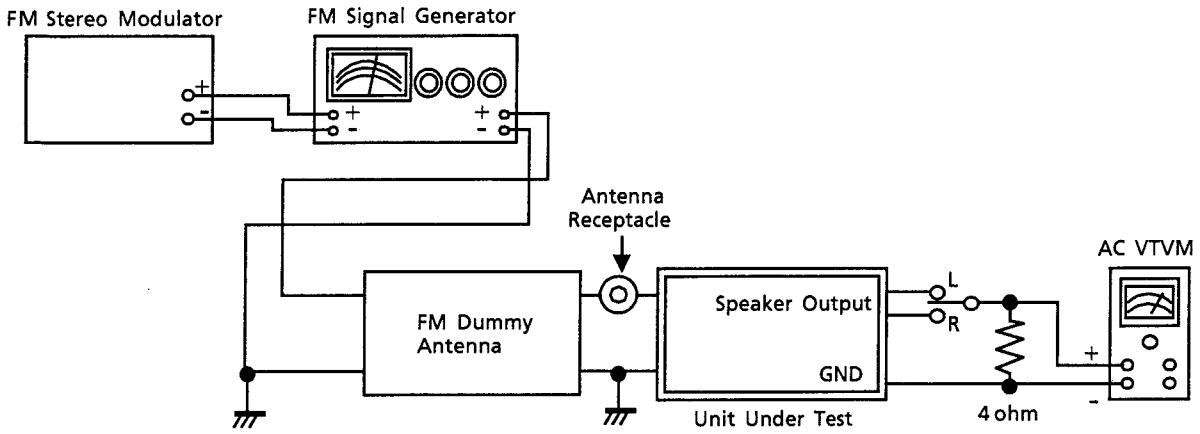
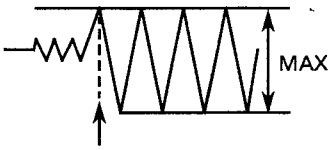


Figure 10

(3) Control Settings

Power Switch ..... ON
Fader Control ..... Center Position
Balance Control ..... Center Position
Treble / Bass Control ..... Center Position
Band Switch ..... FM
Others ..... OFF

(4) Adjustment Procedures

Step	Description		Connection	Signal Generator	Dial Control	Test Point	Adjustment
1	IF Adjustment		Figure 6	98.1MHz, 72dB (Mod. OFF)	98.1MHz	T.P.5 T.P.6	Adjust L2101 to 0±30mV.
2	Signal Meter Adjustment		Figure 7	98.1MHz, 46dB (Mod. 400Hz)	98.1MHz	T.P.8	Adjust VR2101 to 3±0.1V.
3	Noise Level Adjustment	(1)	Figure 8	98.1MHz, 72dB (Mod. 400Hz)	98.1MHz	Speaker Output	Adjust MAIN VOLUME to obtain 2V output. This value is 0dB.
		(2)	Figure 8	98.1MHz, - 19dB (Mod. 400Hz)	98.1MHz	Speaker Output	Adjust VR2106 to -30±5dB output at SG level minimum.
4	Seek Stop Adjustment		Figure 9	98.1MHz, 26dB (Mod. OFF)	98.1MHz	T.P.7	Adjust VR2105 for the waveform changing to maximum output. Figure : Waveform of T.P.7 output.  Stop the adjust VR2105 at this time.
5	Stereo Separation Adjustment (Lch)		Figure 10	98.1MHz, 72dB (Stereo 1kHz, Lch only)	98.1MHz	Speaker Output	Adjust VR2104 for Rch output to be minimum and confirm Lch and Rch output level difference is more than 20dB.

Step	Description	Connection	Signal Generator	Dial Control	Test Point	Adjustment
6	Stereo Blend Adjustment (Lch)	Figure 10	98.1MHz, 46dB (Stereo 1kHz, Lch only)	98.1MHz	Speaker Output	Adjust VR2102 for Lch and Rch output level difference to be 8dB.
7	Stereo Separation Adjustment (Rch)	Figure 10	98.1MHz, 72dB (Stereo 1kHz, Rch only)	98.1MHz	Speaker Output	Proceed same adjustment under step 5 by alternating Lch and Rch.
8	Stereo Blend Adjustment (Rch)	Figure 10	98.1MHz, 46dB (Stereo 1kHz, Rch only)	98.1MHz	Speaker Output	Proceed same adjustment under step 6.

2 SDK SECTION

(1) Dummy Antenna Circuit

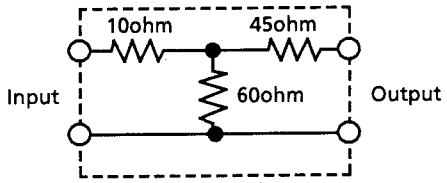


Figure 11

(2) Connections

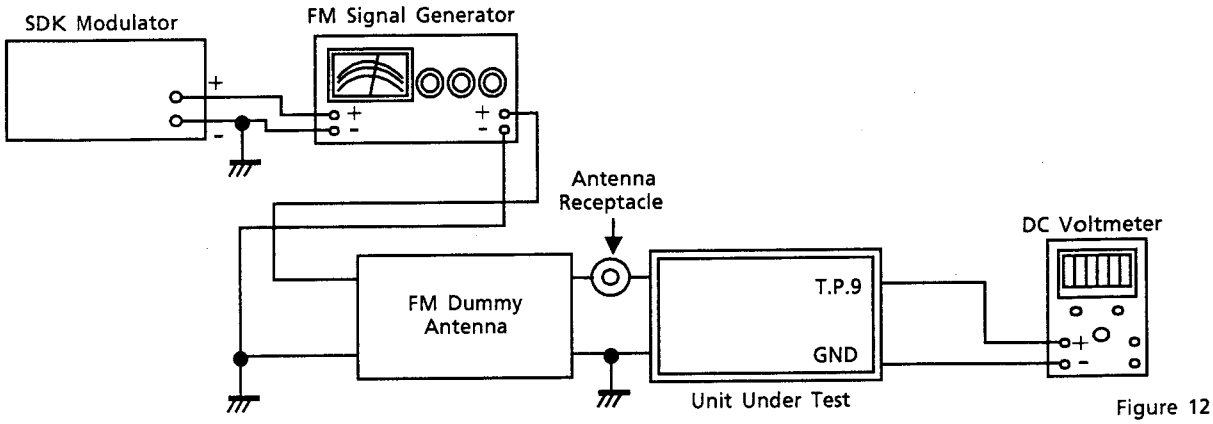


Figure 12

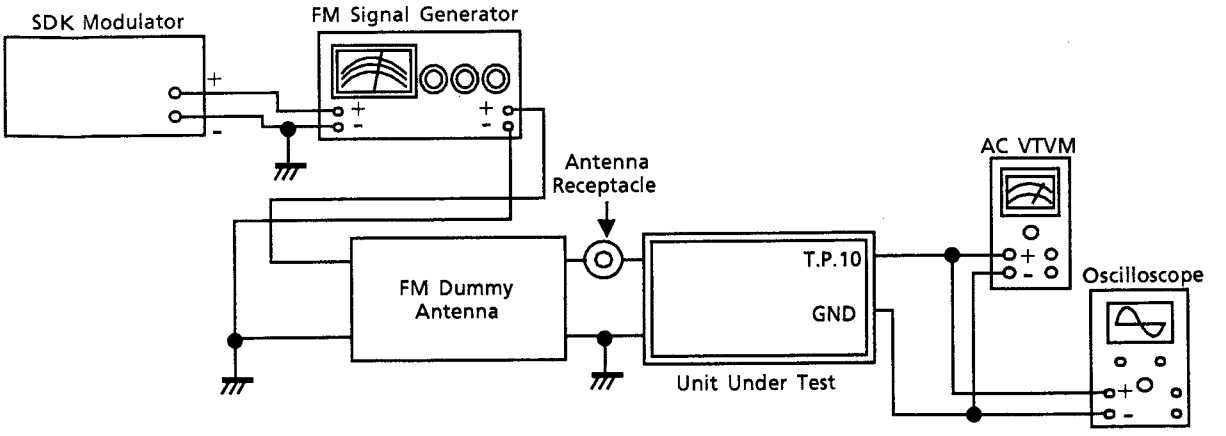


Figure 13

(2) Control Settings

Power Switch	ON	Treble / Bass Control	Center Position
Band Select Switch	SDK	Fader Control	Center Position
Balance Control	Center Position	Others	OFF

(3) Adjustment Procedures

Step	Description	Connection	Signal Generator	Dial Control	Test Point	Adjustment
1	SK Adjustment	Figure 12	98.1MHz, 26dB (SK, BK : ON, DK : OFF) (Mod. 400Hz, Dev. 40kHz)	98.1MHz	T.P.9	L001 for Maximum Output.
2	DK Adjustment	Figure 13	98.1MHz, 26dB (SK, BK, DK : ON) (Mod. 400Hz, Dev. 40kHz)	98.1MHz	T.P.10	VR001 for Maximum Output.

3 Compact Disc SECTION

(1) Connections

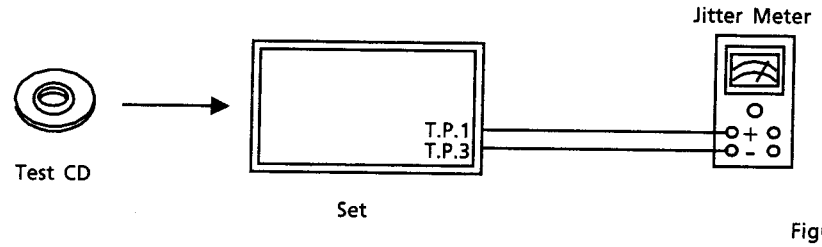


Figure 14

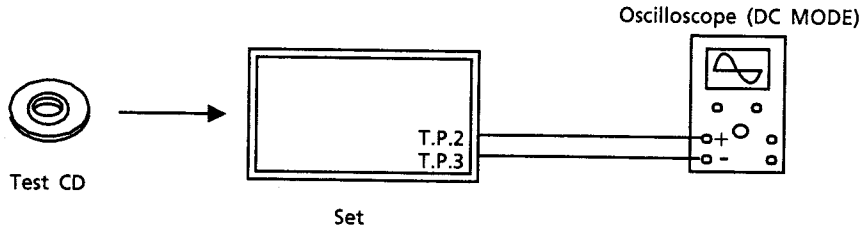


Figure 15

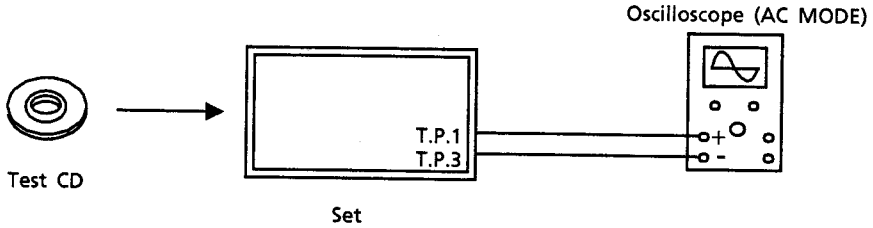


Figure 16

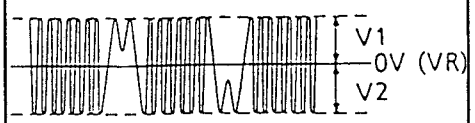
(2) Control Settings

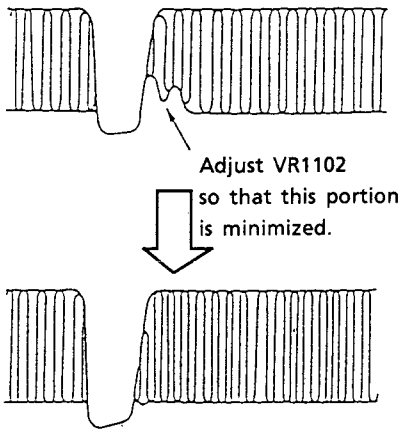
Power SW ..... ON
Fader Control ..... Front
Balance Control ..... Mechanical Center
Treble / Bass Control ..... Mechanical Center
Others ..... OFF

(3) The necessaries for adjustment

DP-H Extension Cord
Assy., EX Cord Kit for DP-H Mechanism
Part No. 01E11375S01
See Adjustment Locations (Figure 17)

(4) Adjustment Procedures

Step	Description	Test CD	Connection	Test Point	Adjustment Point	Adjustment
1	Jitter Adjustment	TCD-782 Track No.1 (A-BEX)	Figure 14	T.P.1 T.P.3	VR1103	①: Set the mode to playback with the test disc loaded. ②: First, rotate VR1103 fully counter-clockwise. ③: Using the jitter meter, measure the T.P.1 signal. ④: Next, carefully rote VR1103 clockwise until the jitter meter shows a minimum value and then increases by +0.5nS from the minimum value.
2	Tracking Balance Adjustment	TCD-782 Track No.1 (A-BEX)	Figure 15	T.P.2 T.P.3 T.P.4	VR1101	①: Set the mode to playback with the test disc loaded. ②: Use wire to connect T.P.3 to T.P.4. ③: Using the oscilloscope, measure the T.P.2 signal in reference to VR. (VR standard=0V) ④: Adjust VR1101 so that the positive and negative deflection widths of the T.P.2 signal are at the same level, relative to VR (0V). (The entire waveform moves up and down.)  V1 = V2 ⑤: After adjustment, remove the wire connecting to T.P.3 to T.P.4

Step	Description	Test CD	Connection	Test Point	Adjustment Point	Adjustment
3	Tracking Offset Adjustment	TCD-721 Track No.6 (A-BEX)	Figure 16	T.P.1 T.P.3	VR1102	①: Set the mode to playback with the test disc loaded. ②: Using the oscilloscope, measure the T.P.1 signal. ③: Adjust VR1102 in order to minimum the waveform induced by the reaction to the omission of the T.P.1 signal. ④: Conduct the tracking balance adjustment once again. 

Adjustment Locations

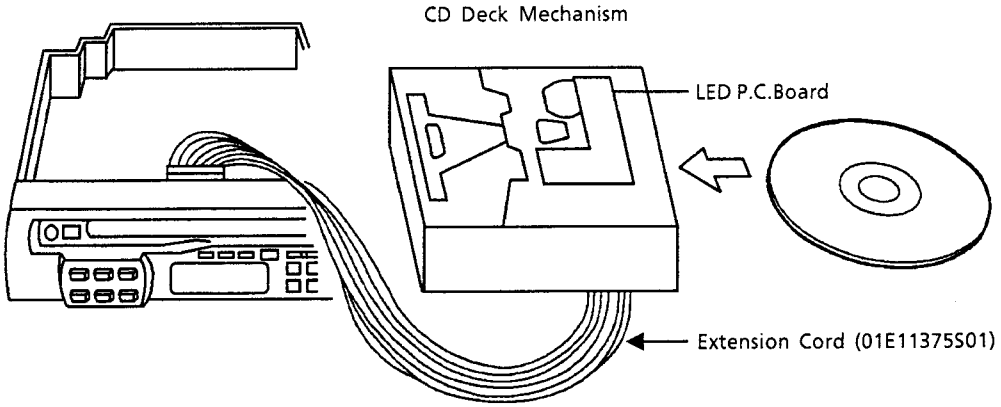
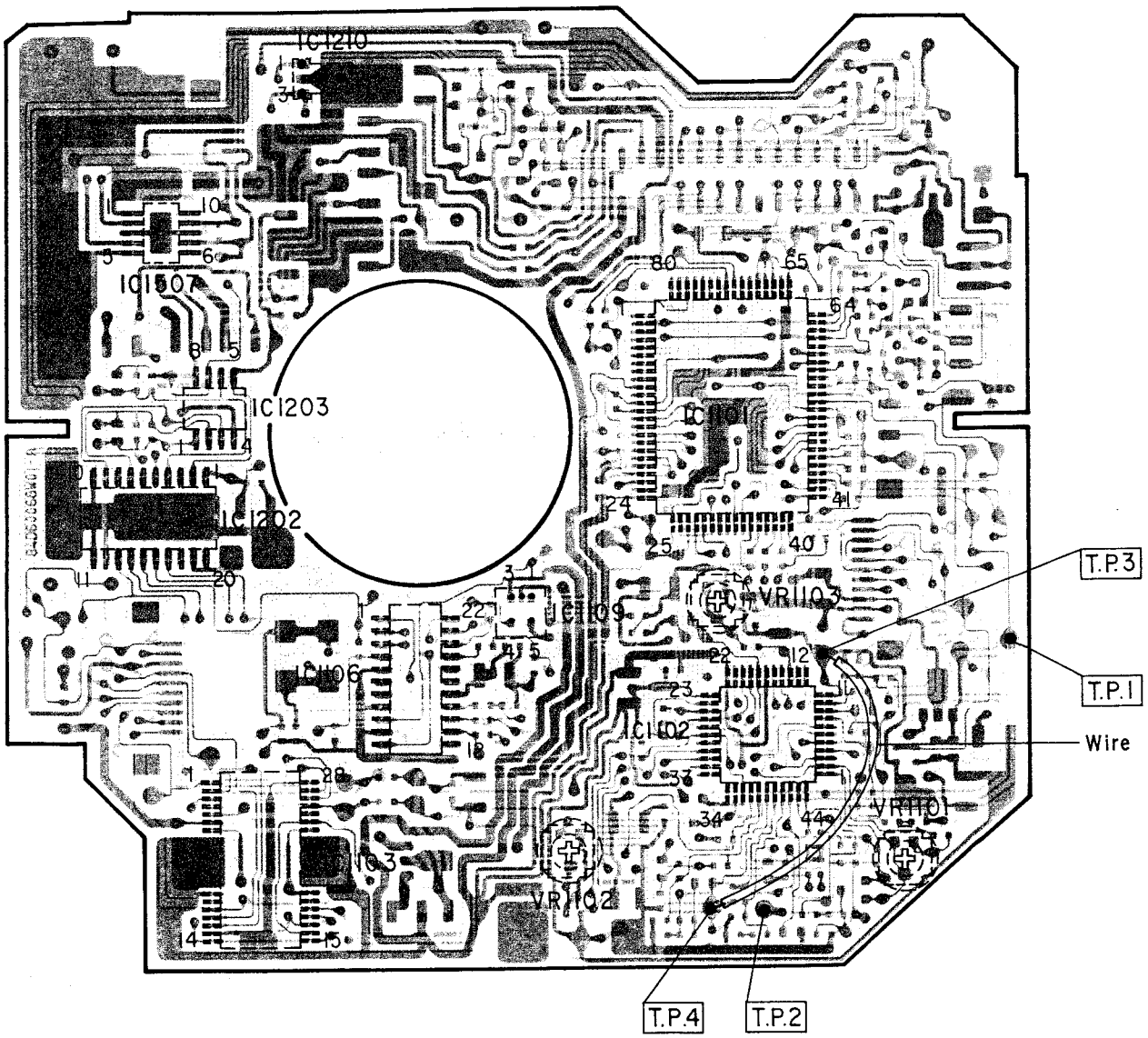
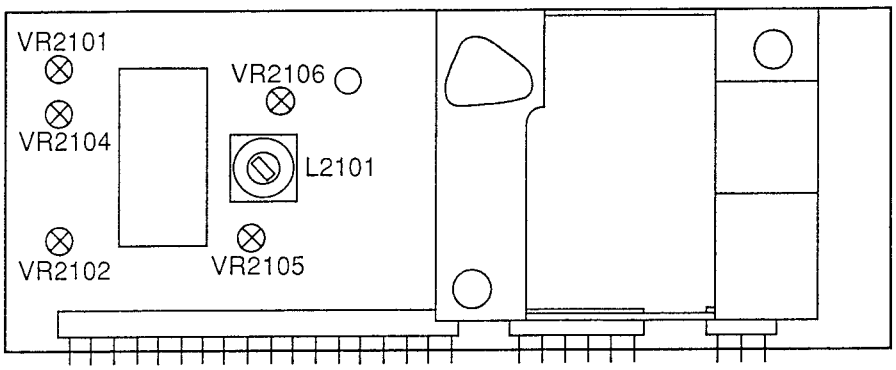


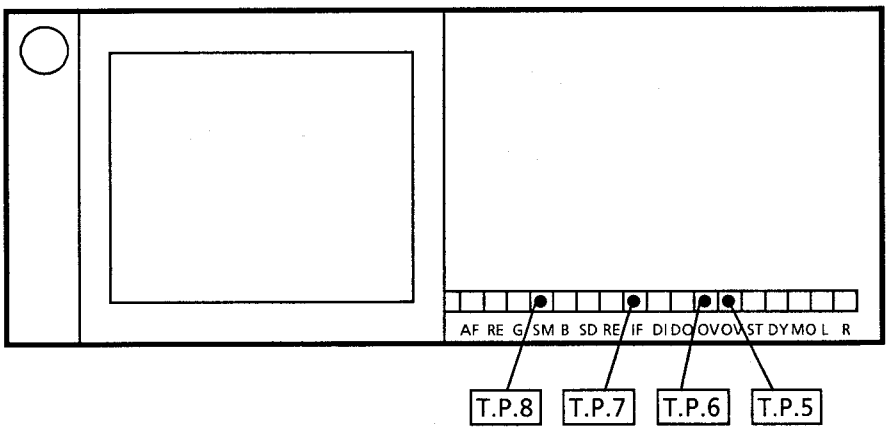
Figure 17



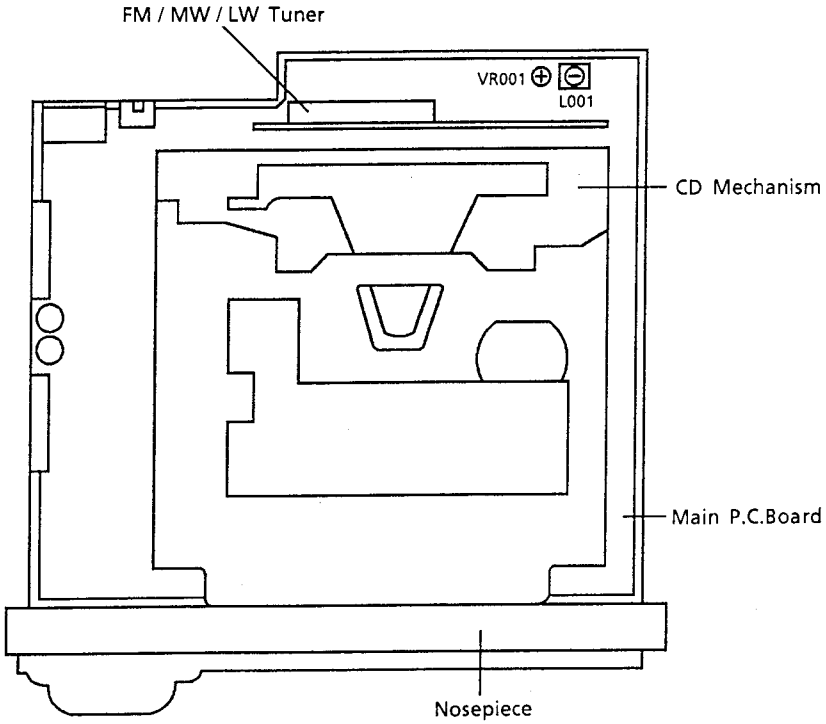
DP Main P.C. Board (Foil Side)



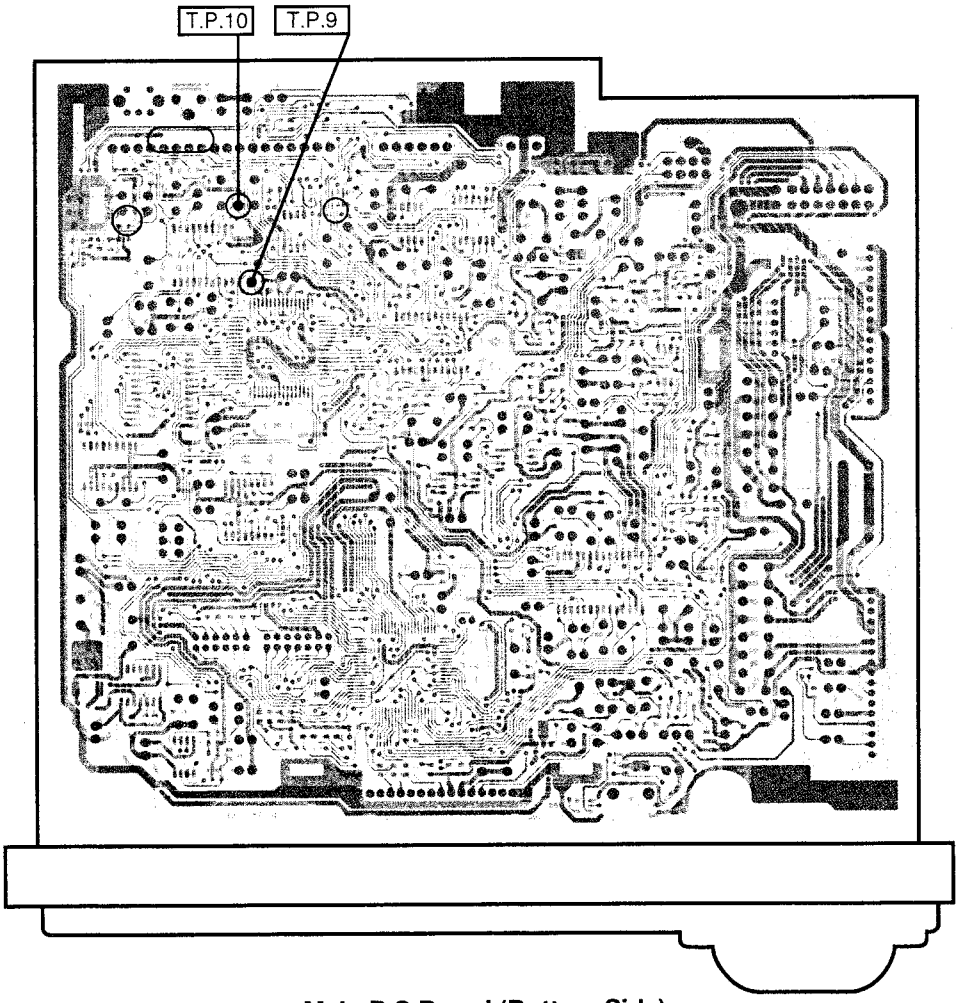
FM/MW/LW Tuner Unit (FE001)



FM/MW/LW Tuner Unit (FE001)
(Foil Side)



(Top Side)



Main P.C.Board (Bottom Side)

Description of IC Terminal

55384W08 (IC601)

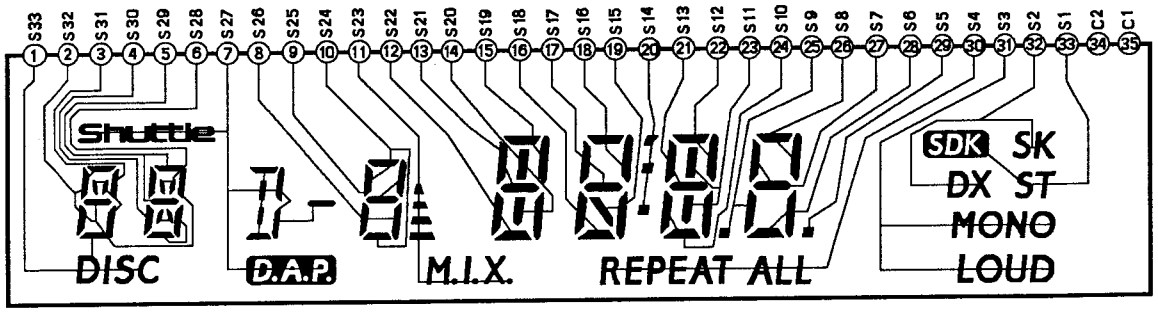
No.	Symbol	I / O	Terminal Description
1	PH - D	I	8 cm END Detector.
2	PH - E	I	RELOAD Detector.
3	GND	—	GND.
4	GND	—	GND.
5	X2	—	SUB CLOCK 2.
6	X1	—	SUB CLOCK 1.
7	GND	—	GND.
8	OSC1	—	SYSTEM CLOCK 1 (7.15MHz).
9	OSC2	—	SYSTEM CLOCK 2 (7.15MHz).
10	$\overline{\text{RESET}}$	I	SYSTEM RESET Input.
11	A - HOLD	I	ACC ON / OFF Detector.
12	B - HOLD	I	BATT ON / OFF Detector.
13	CHNG - D - I	I	BUS LINE DATA Input.
14	$\overline{\text{IN - PAUSE}}$	I	IN - PAUSE Input.
15	$\overline{\text{IN - INT}}$	I	IN -INTERRUPT Input.
16	TP - ALM	O	TP OFF Alarm Output.
17	PULL - D	—	PULL - DOWN.
18	$\overline{\text{ST}}$	I	ST Signal input.
19	PULL - D	—	PULL - DOWN.
20	PULL - D	—	PULL - DOWN.
21	PULL - D	—	PULL - DOWN.
22	CHNG - D - O	O	BUS LINE DATA Output.
23	OUT - REM	O	OUT - REMOTE Output.
24	PULL - D	—	PULL - DOWN.
25	POW - ON	O	POWER - ON Output.
26	A - MUTE	O	AUDIO MUTE Output.
27	PULL - D	—	PULL - DOWN.
28	ALM ON	O	TP Alarm Switching Control.
29	PULL - D	—	PULL - DOWN.
30	VOL - CLK	O	VOLUME CLOCK Output.
31	VOL - DATA	O	VOLUME DATA Output.

No.	Symbol	I / O	Terminal Description
32	PULL - D	—	PULL - DOWN.
33	NOSE - POW	O	Power Supply Control Output.
34	POW - IC	O	POWER - IC Standby Control.
35	LCD - ON	O	LCD Back Light.
36	AMB / $\overline{\text{GRE}}$	O	AMBER / GREEN Switching.
37	KEY - P / S	O	Parallel / Serial Switching.
38	PULL - D	—	PULL - DOWN.
39	KEY - IN	I	KEY DATA Input.
40	AREA3	I	Area set up.
41	AREA2	I	Area set up.
42	AREA1	I	Area set up.
43	DK	I	DK signal input.
44	SK	I	SK signal input.
45	SD	I	SD signal input.
46	$\overline{\text{CAM - END}}$	I	DISC Cramp Detector.
47	LOAD - FWD	O	LOADING MOTOR FWD Driving Output.
48	LOAD - BWD	O	LOADING MOTOR BWD Driving Output.
49	SOLNOID	O	Clamp solenoid drive Output.
50	PULL - D	—	PULL - DOWN.
51	PULL - D	—	PULL - DOWN.
52	F - CONT	O	FOCUS SERVO Gain Switching Terminal.
53	L - CONT	O	DISC Detector Power Supply Control.
54	V - CONT	O	Power Supply Control to CD.
55	5V	—	+5V.
56	BUS0	I / O	Command Data 0 to Servo Controller.
57	BUS1	I / O	Command Data 1 to Servo Controller.
58	BUS2	I / O	Command Data 2 to Servo Controller.
59	BUS3	I / O	Command Data 3 to Servo Controller.
60	BUSK	O	CLOCK Output to Servo Controller.
61	CCE	O	CE Output to Servo Controller.
62	LOCK	O	LOCK Status Input terminal.
63	$\overline{\text{LIMIT - SW}}$	I	LIMIT SW. Detector.
64	DTS - CE	O	DTS CE Output.
65	DTS - SCK	O	DTS SCK Output.

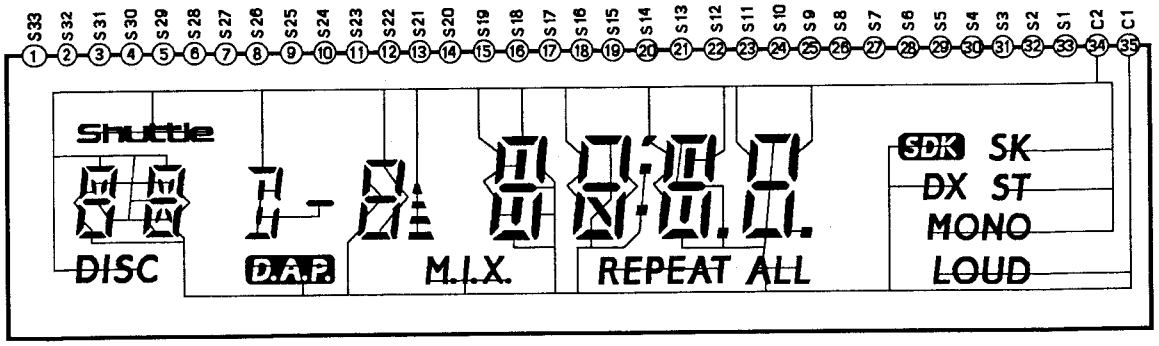
No.	Symbol	I / O	Terminal Description
66	DTS - STS	I	Serial DATA Signal Input.
67	DTS - CMD	O	Serial DATA Signal Output.
68	LCD - CLK	O	LCD CLOCK Output.
69	LCD - CE	O	LCD CE Output.
70	LCD - DATA	O	LCD DATA Output.
71	LCD - INH	O	LCD INH Output.
72	DTS - STAT	O	DTS STAT Output.
73	$\overline{\text{DTS - STBY}}$	O	DTS STBY Output.
74	AV_{CC}	—	Standard Voltage terminal for A / D Converter.
75	T-SENSE	I	Temperature Senser.
76	NOSE	I	NOSE Detector.
77	DTS - MUTE	I	DTS AUDIO MUTE Input.
78	PH - A	I	DISC IN Detector.
79	PH - B	I	EJECT - END Detector.
80	PH - C	I	8 cm DISC Detector.

LCD Display

SEGMENT



COMMON



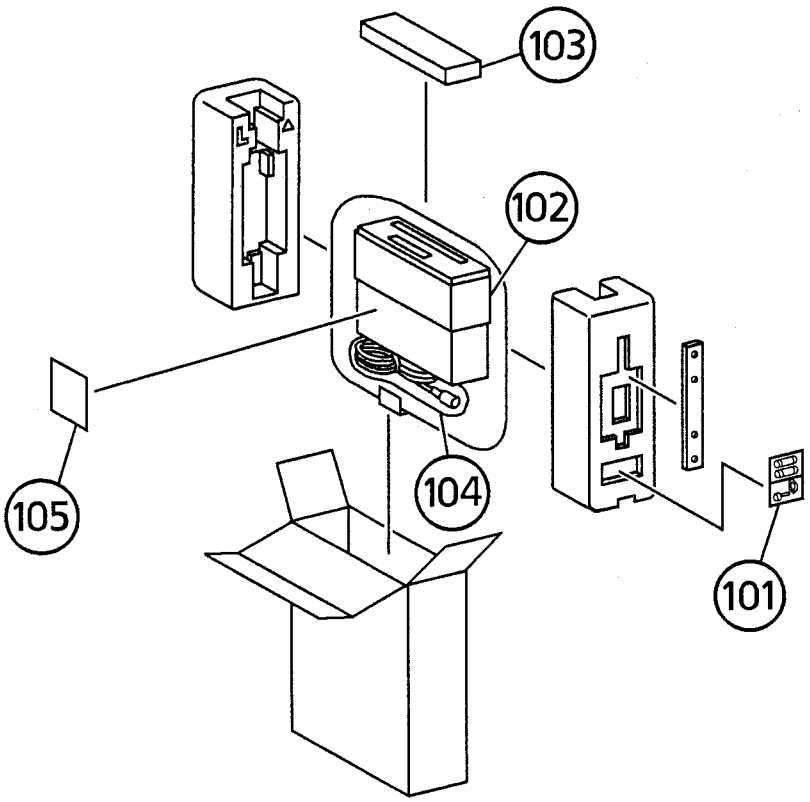
Packing Assembly Parts List

Symbol No.	Part No.	Description
101	01V53600W33	Assy., Kit Installation
102	15D50406W01	Case, Inner
103	15D51292W02	Carrying, Case
○ 104	01T55176W04	Assy., Power Supply & SP. Output Connector
● 104	01T55176W06	Assy., Power Supply & SP. Output Connector
105	68P50390W72	Owner's Manual

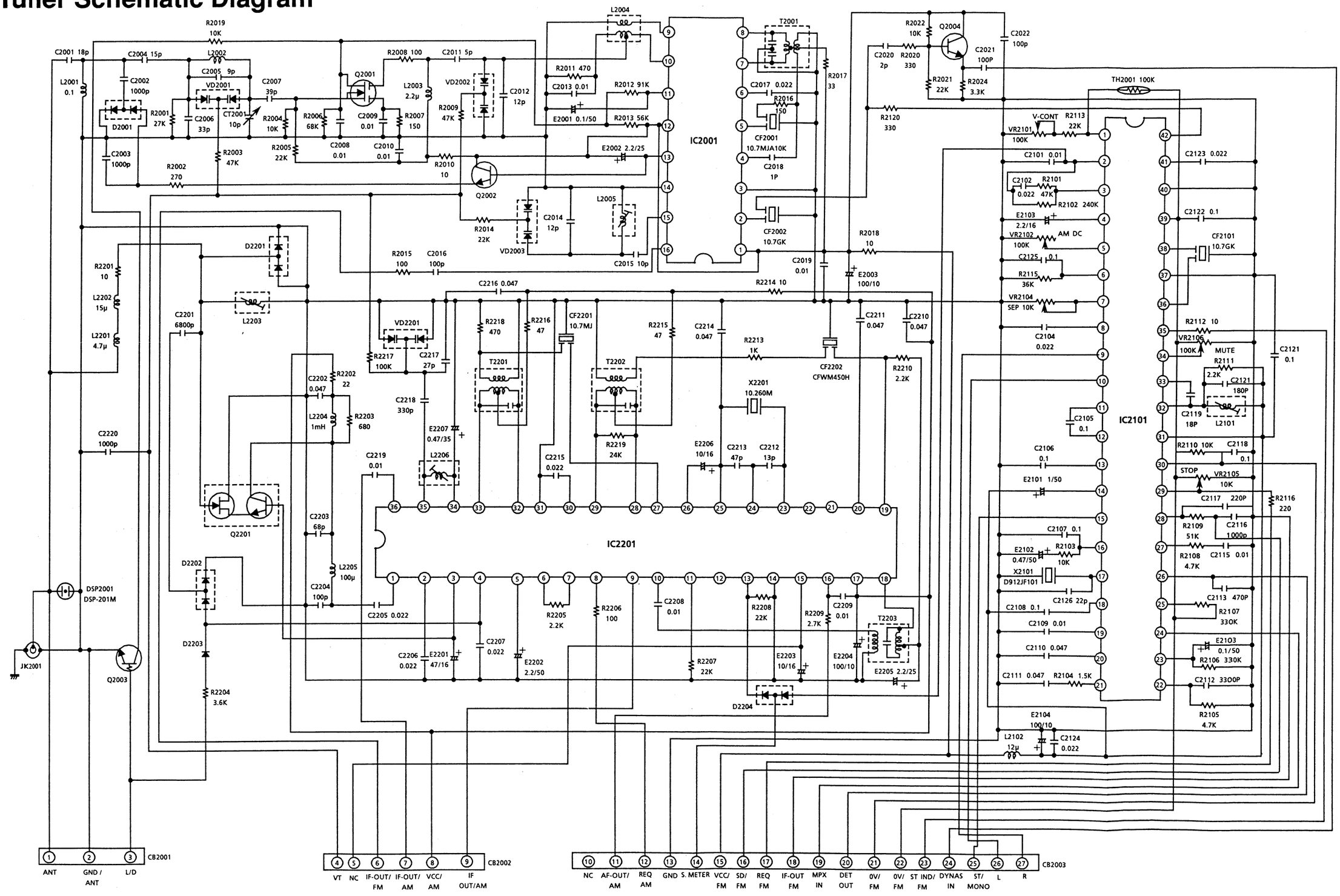
Symbol No.	Part No.	Description

Notes : ○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

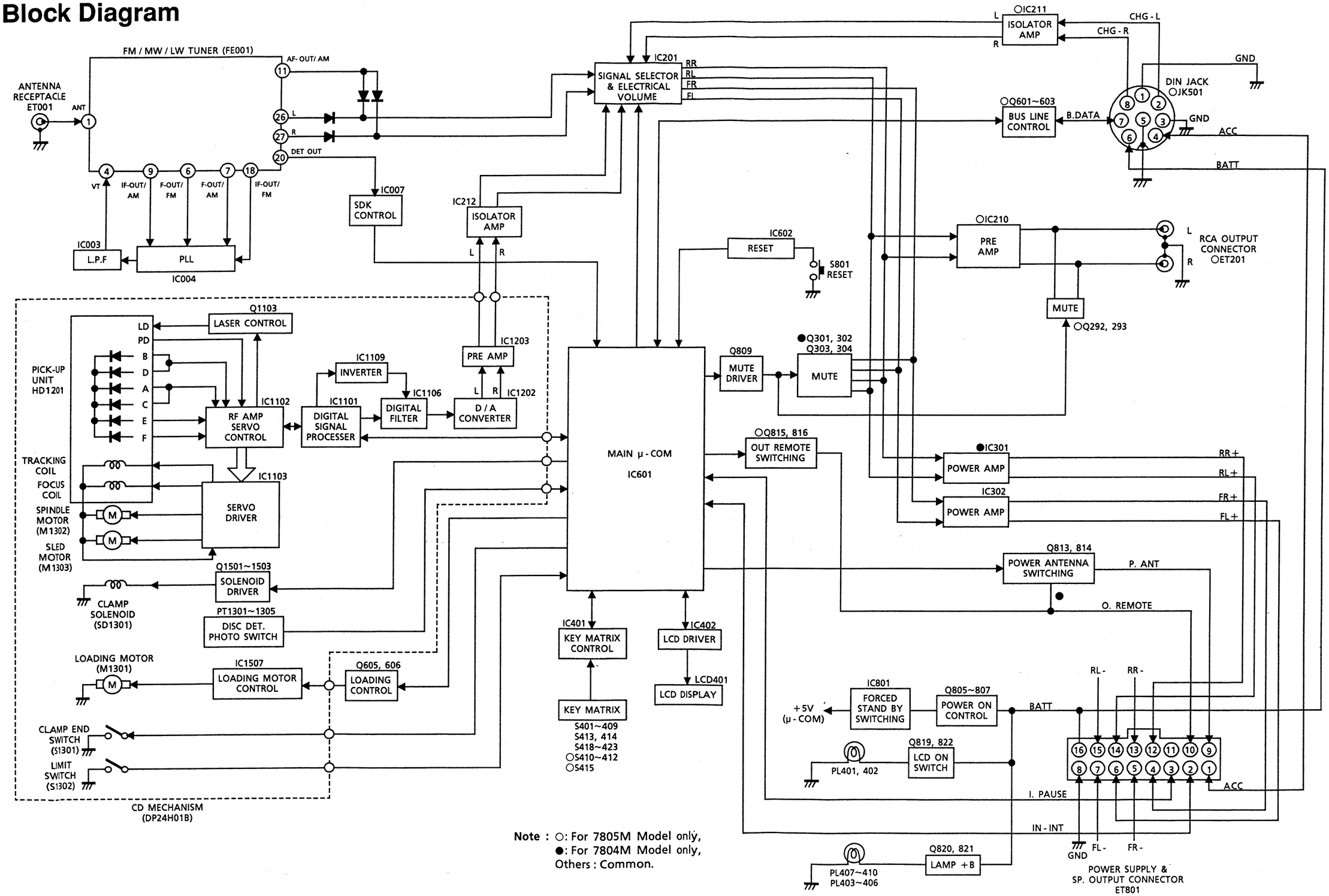
Packing Method View



Tuner Schematic Diagram



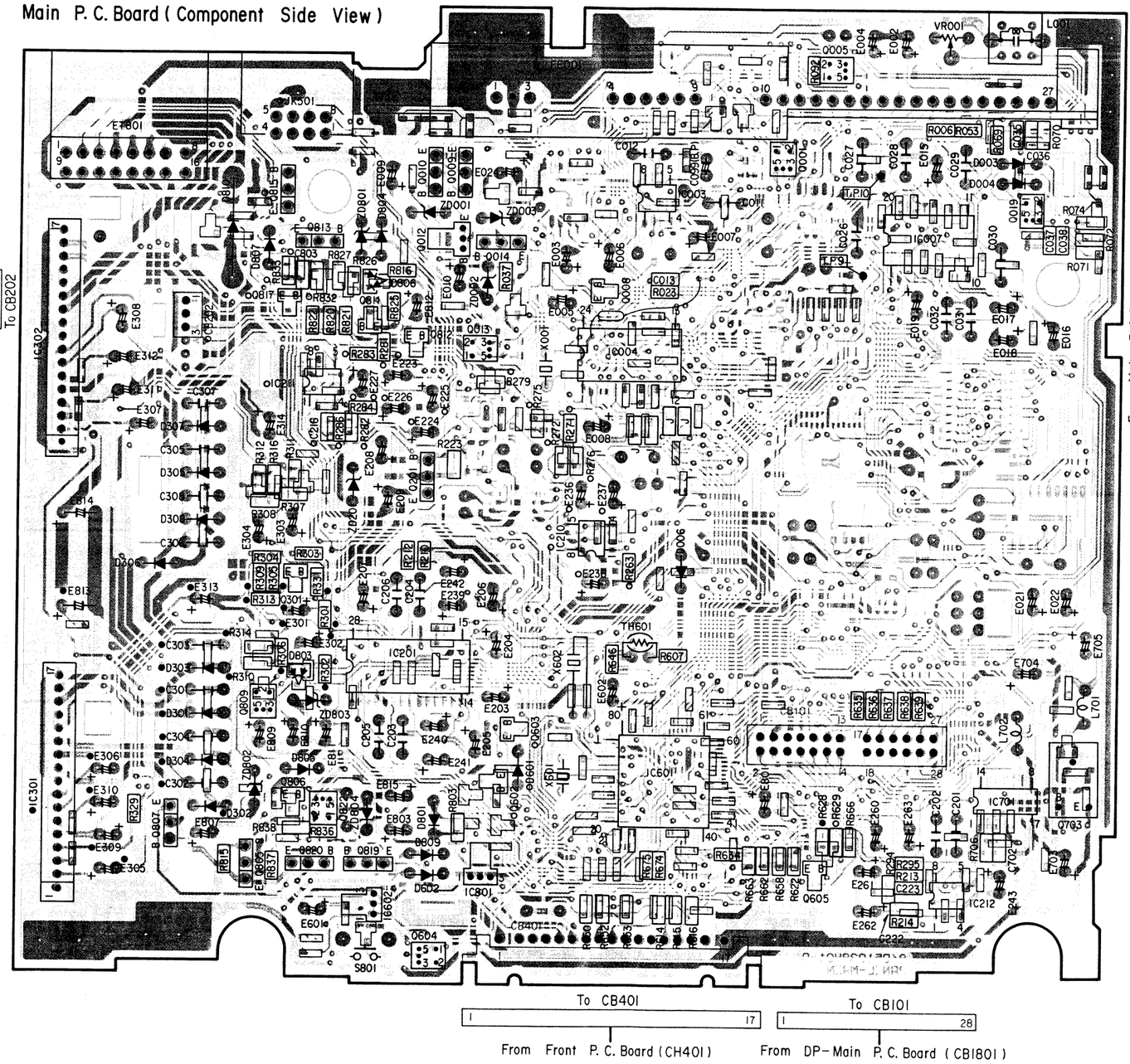
Block Diagram



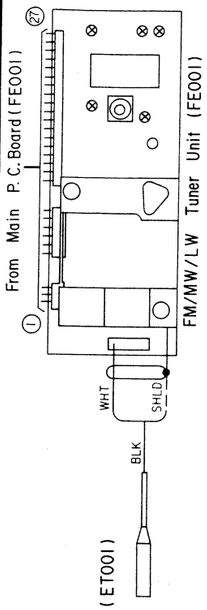
Note : ○: For 7805M Model only,
●: For 7804M Model only,
Others : Common.

Parts Layout on P.C. Boards and Wiring Diagram (1/2)

Main P. C. Board (Component Side View)



2 ○RCA Output Connector (ET201)



(●);For 7804M Model Only
(○);For 7805M Model Only
Others ; Common

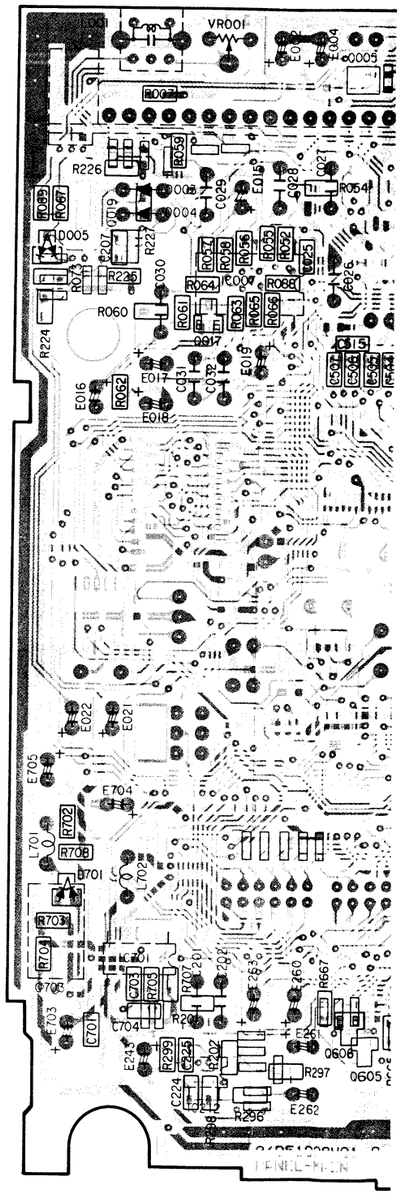
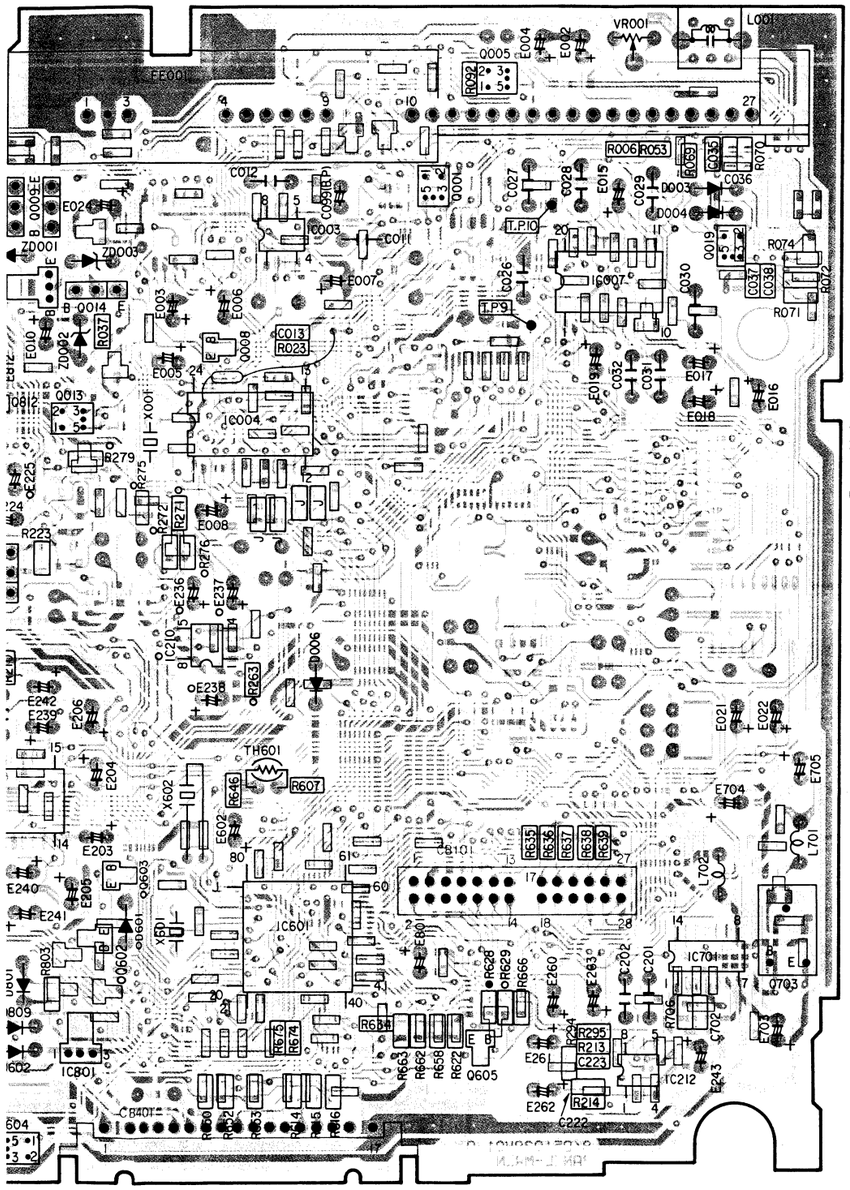
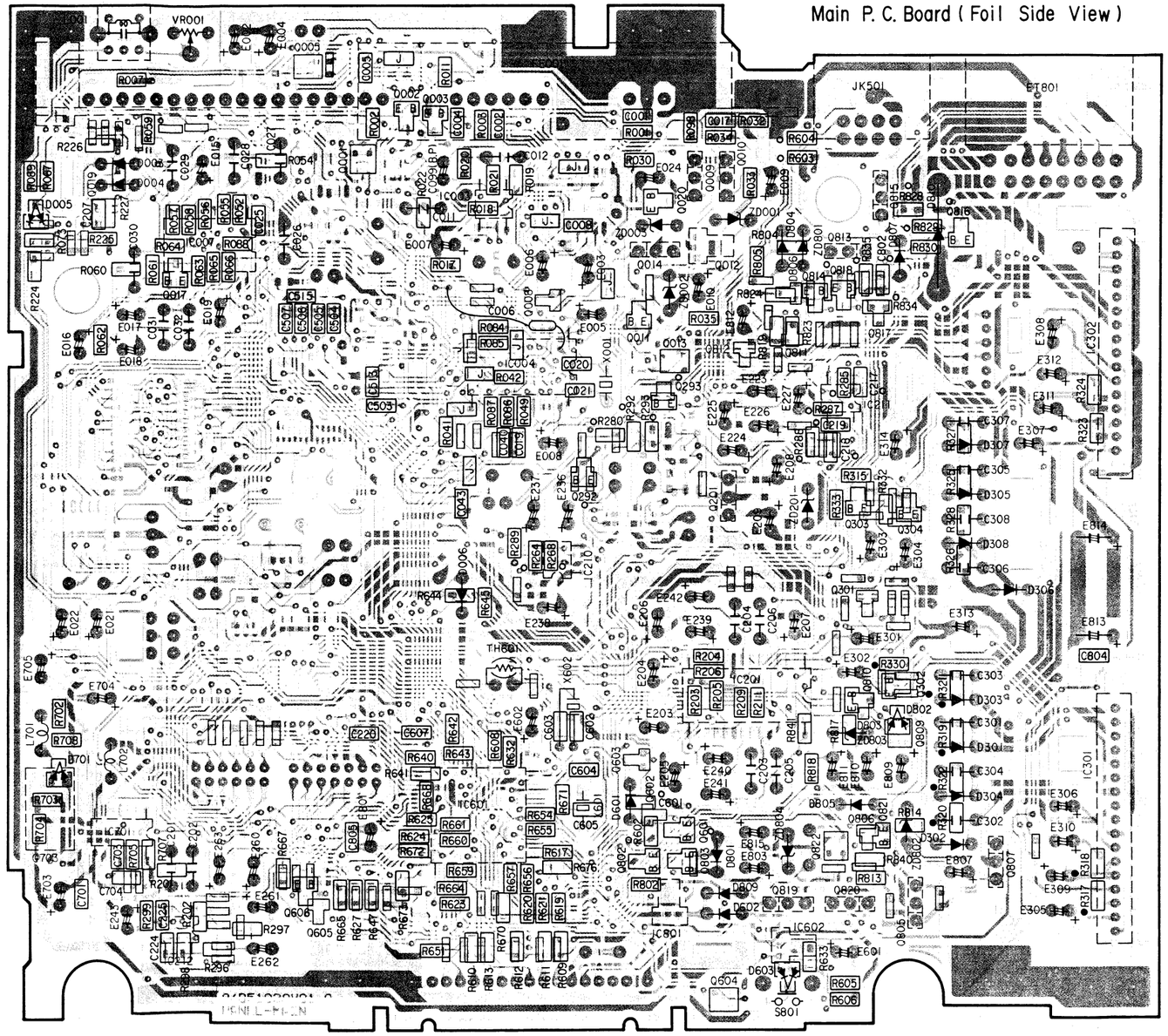


Diagram (1/2)


From Main P. C. Board (FE001)
FM/MW/LW Tuner Unit (FE001)
WHT
SHLD
BLK
Antenna Receptacle (ET001)
To CB401
To CB101
From Front P. C. Board (CH401)
From DP-Main P. C. Board (CB1801)

(●):For 7804M Model Only
(○):For 7805M Model Only
Others : Common

Main P. C. Board (Foil Side View)

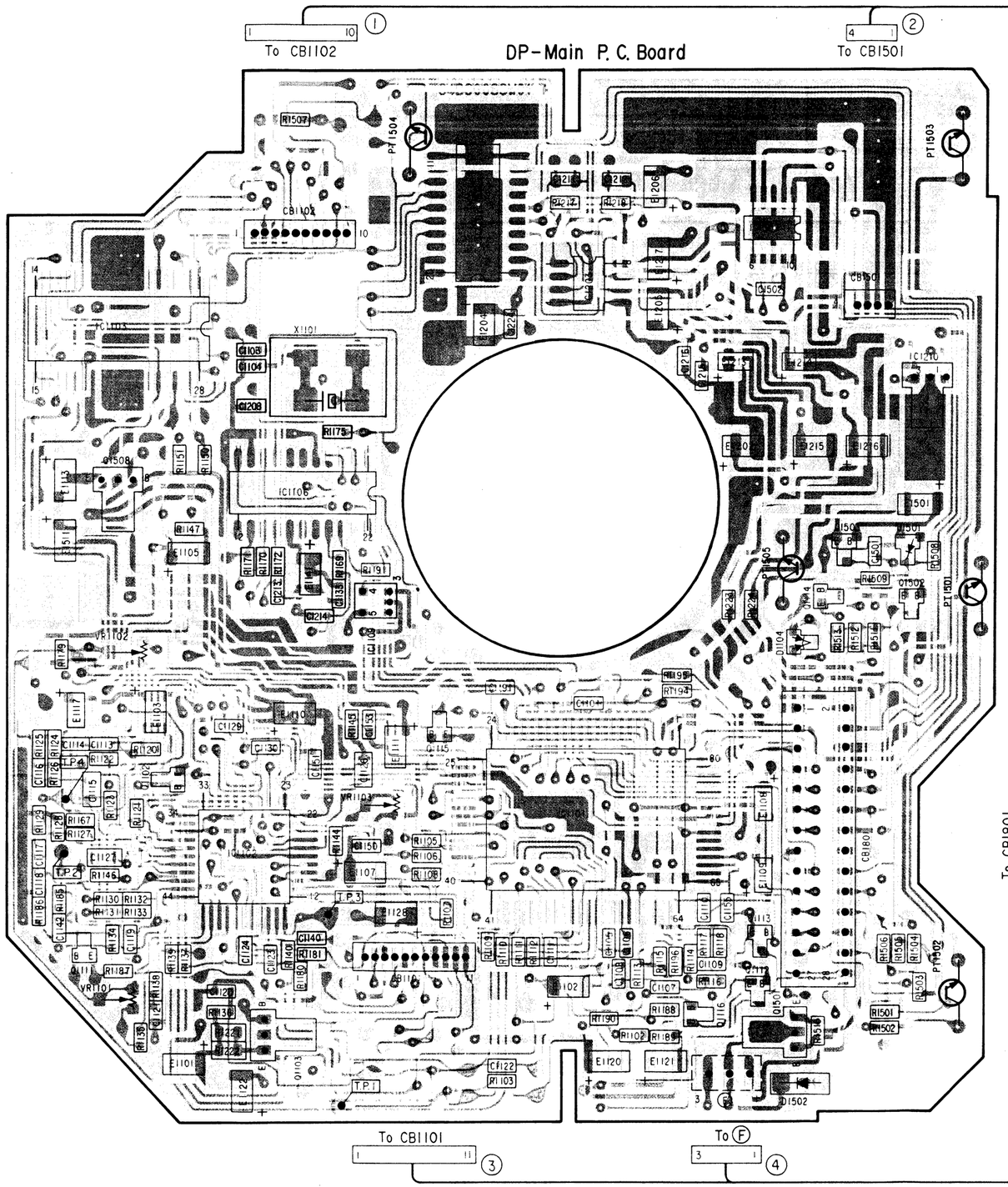


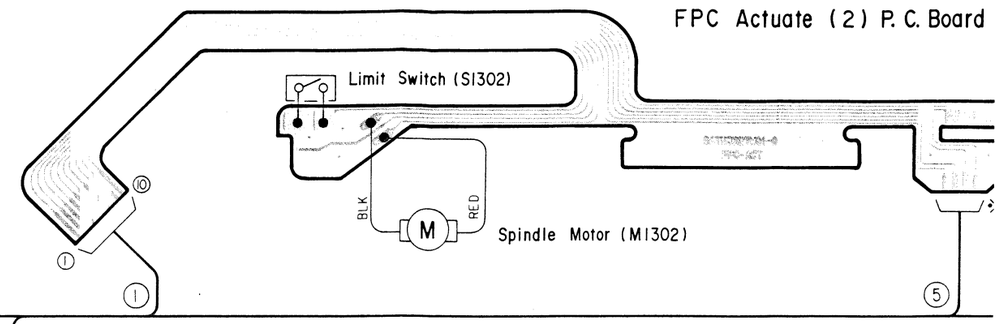
Orange Color Pattern : Component Side Pattern
Blue Color Pattern : Foil Side Pattern

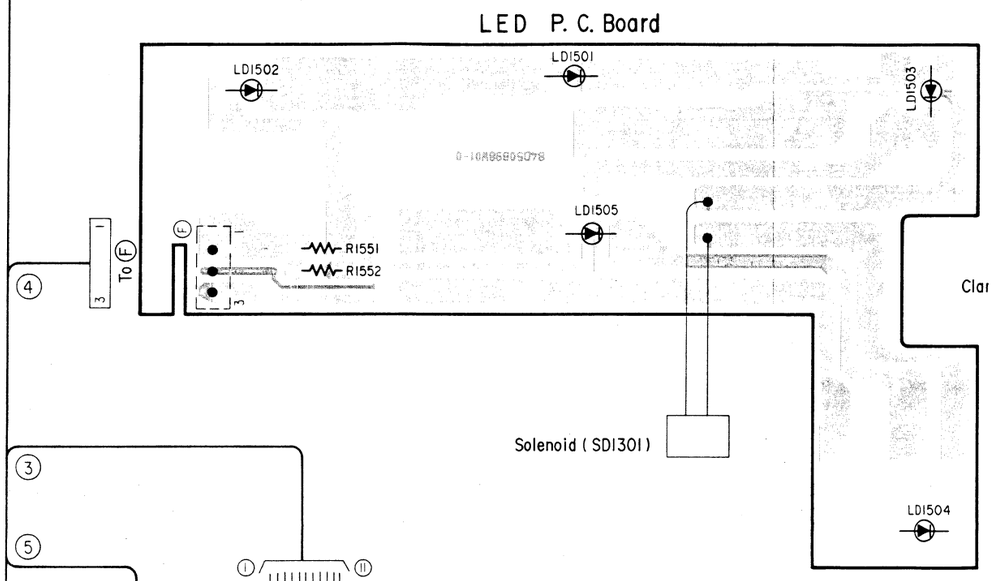
7805M/
7804M

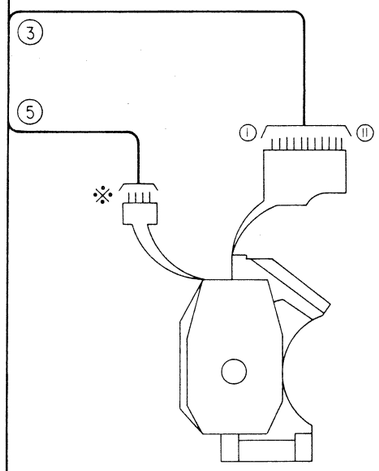
Parts Layout on P.C. Boards and Wiring Diagram (2/2)

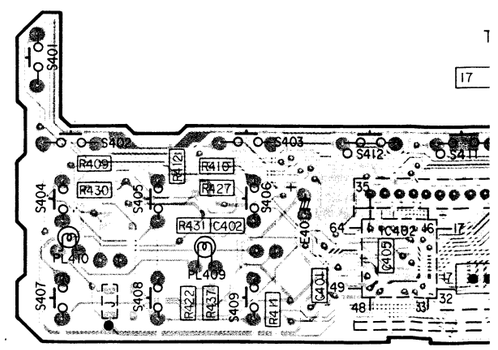
All P.C. Boards viewed from soldered side.







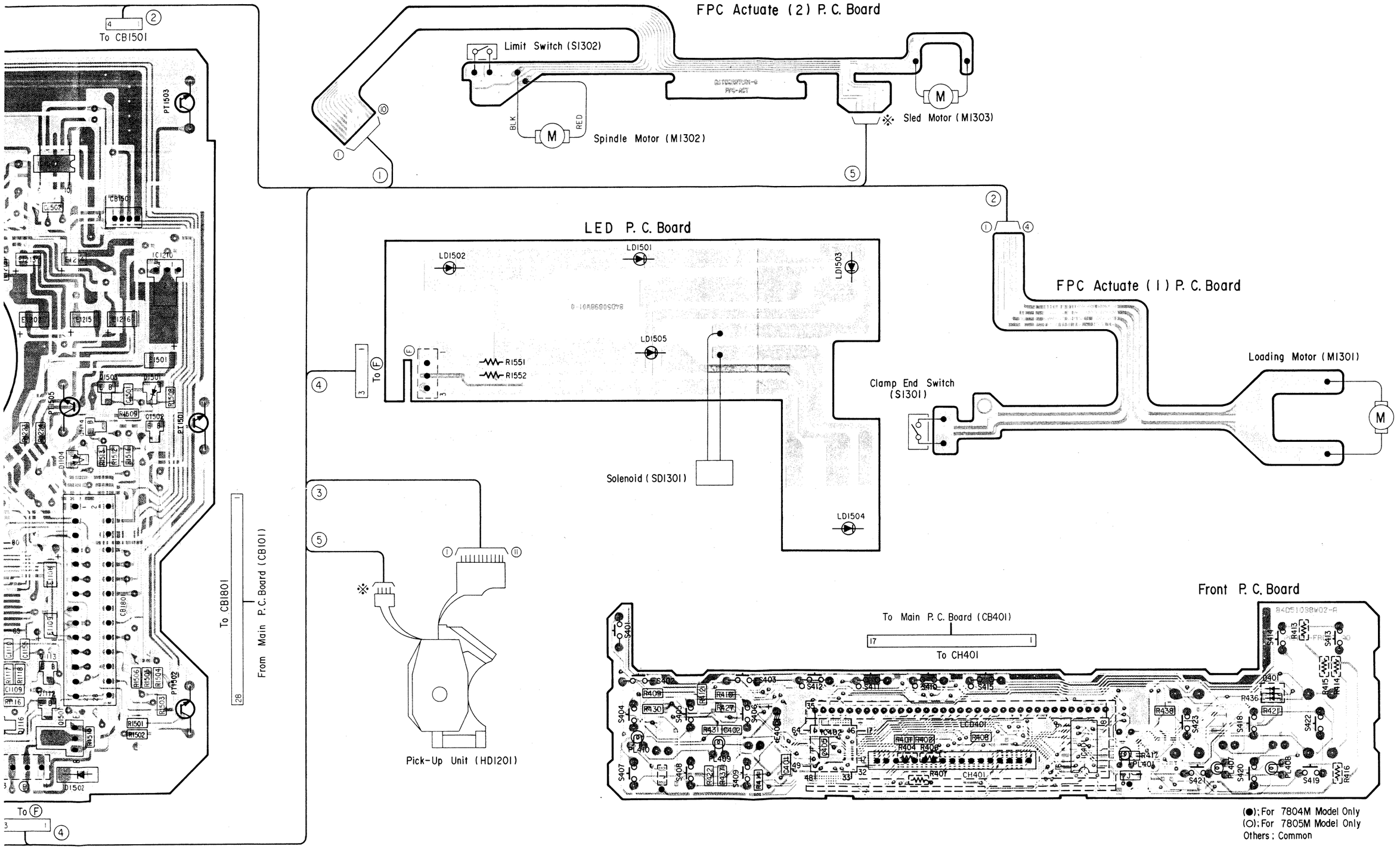




7805M/ 7804M	7805M/ 7804M

iagram (2/2) All P.C. Boards viewed from soldered side.

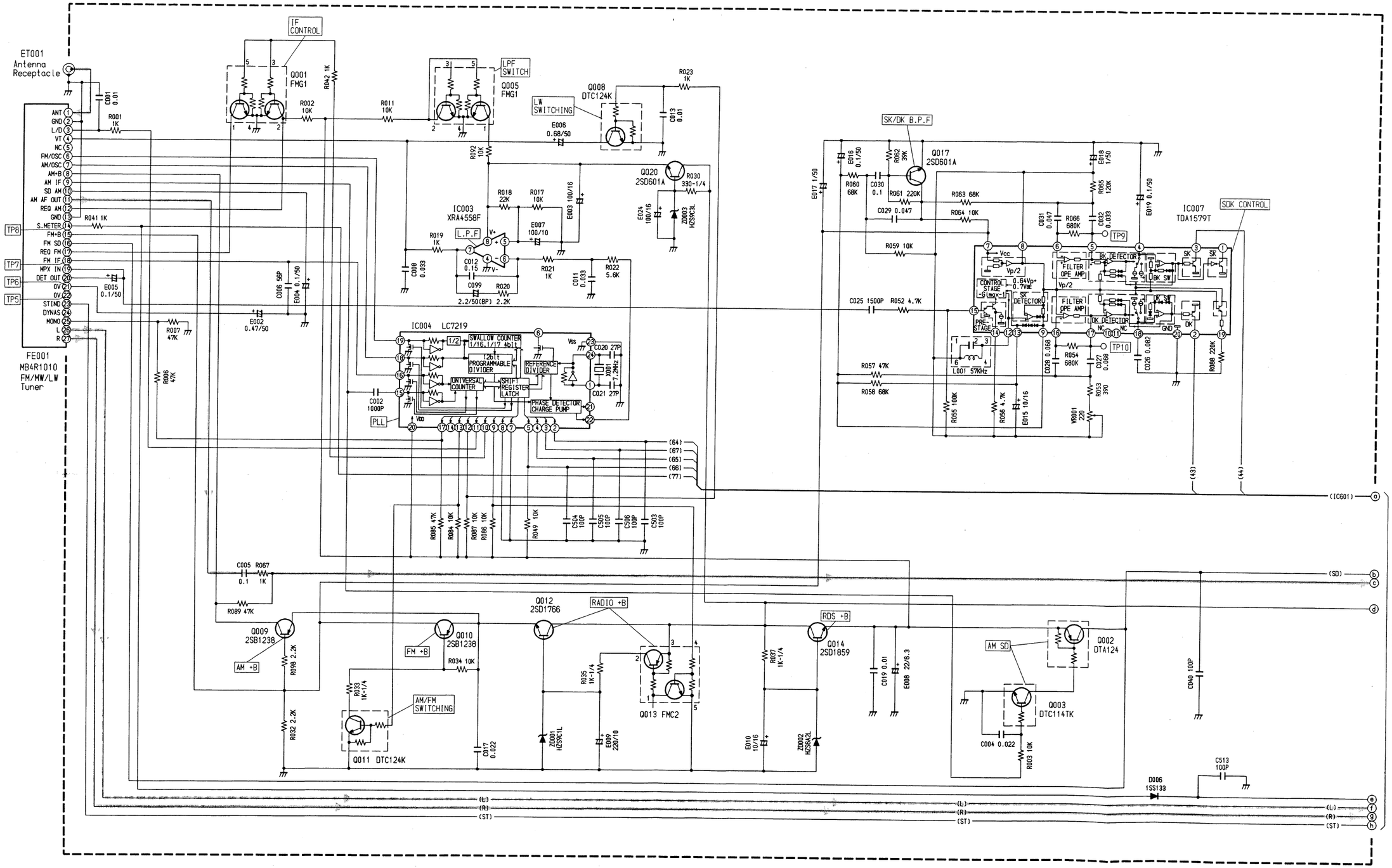
Orange Color Pattern : Component Side Pattern
Blue Color Pattern : Foil Side Pattern



Schematic Diagram (1/4)

IC	IC004 IC003 IC007
Transistor (Q)	Q001 Q005 Q008 Q020 Q017 Q009 Q011 Q010 Q012 Q013 Q014 Q003 Q002

Main P.C.Board (1/3)



IC003	
1	9.27V
2	0.75V
3	3.04V
4	0V
5	3.04V
6	5.08V
7	5.08V
8	9.77V

IC007	
1	0V
2	0V
3	5.03V
4	0V
5	4.35V
6	4.35V
7	8.7V
8	4.35V
9	4.43V
10	0.03V

	1
Q001	4.5V
Q005	0V
Q013	0V

	E
Q002	0V
Q003	5.01
Q008	0V
Q009	8.8
Q010	8.8
Q011	0V
Q012	8.8
Q014	4.9
Q017	0V
Q020	10.4

Notes : ○: F
●: F
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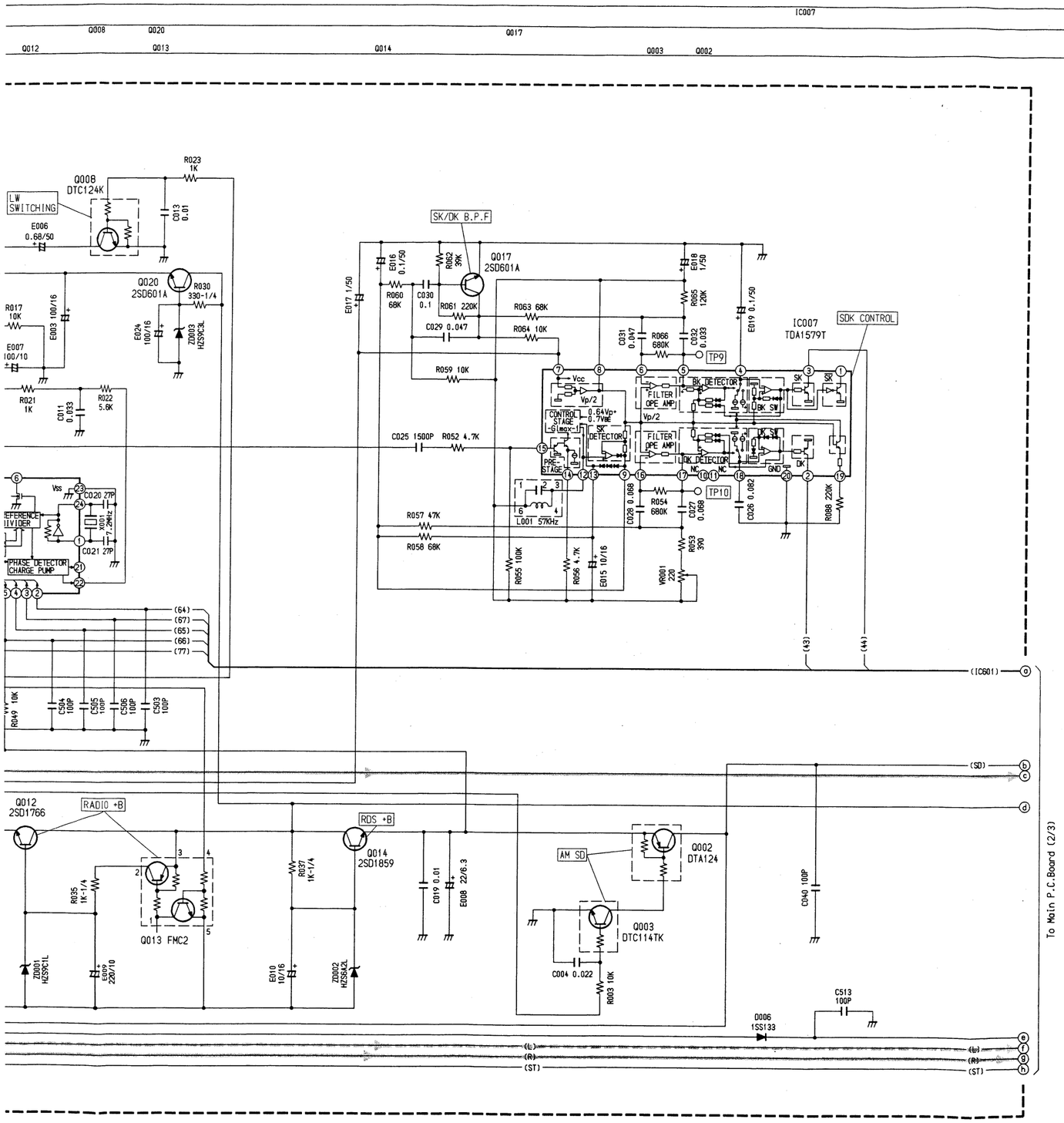
1. Power S
2. Measuri
3. Measuri
4. Measuri



IC003

1	9.27V
2	0.75V
3	3.04V
4	0V
5	3.04V
6	5.08V
7	5.08V
8	9.77V

IC004

1	SIG	13	NC
2	0V	14	NC
3	0V	15	0V
4	0V	16	0V
5	4.55V	17	NC
6	NC	18	0V
7	0V	19	SIG
8	0V	20	5V
9	1.8V	21	3.1V
10	4.91V	22	0V
11	NC	23	0V
12	NC	24	SIG

IC007

1	0V	11	0V
2	0V	12	4.36V
3	5.03V	13	4.4V
4	0V	14	S.G
5	4.35V	15	S.G
6	4.35V	16	4.36V
7	8.7V	17	4.36V
8	4.35V	18	0.01V
9	4.43V	19	3.63V
10	0.03V	20	0V

	1	2	3	4	5
Q001	4.5V	0V	4.5V	0V	0V
Q005	0V	0V	3.6V	3.6V	0V
Q013	0V	9V	14.25V	1.8V	0V

	E	C	B
Q002	0V	4.99V	0.2V
Q003	5.01V	4.95V	4.99V
Q008	0V	0V	0V
Q009	8.8V	1.15V	8.2V
Q010	8.8V	8.8V	8.2V
Q011	0V	0.1V	2.7V
Q012	8.8V	14.25V	9.4V
Q014	4.9V	14.25V	5.5V
Q017	0V	0.59V	4.17V
Q020	10.45V	13.62V	10.73V

Notes : ○: For 7805M Model only,
●: For 7804M Model only,
Others : Common.

<Measuring Conditions>

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Voltmeter
3. Measuring Point Reference : Between Ground
4. Measuring Conditions : CD : Be Playing back the 2nd Music of the test CD (YEDS-18)
   TUNER : No Signal Input
   FM 98.1MHz
   MW 999kHz
   LW 216kHz

NOTES:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

7805M/
7804M

Schematic Diagram (2/4)

IC	IC601	IC701	IC602	IC201	IC801	IC212 IC211	IC210
Transistor (Q)	Q605 Q606 Q019	Q703 Q604		Q802 Q803		Q201 Q806 Q805 Q807 Q809 Q810	Q601 Q602 Q603

Main P.C.Board (2/3)

From DP-Main P.C.Board (CB1801)

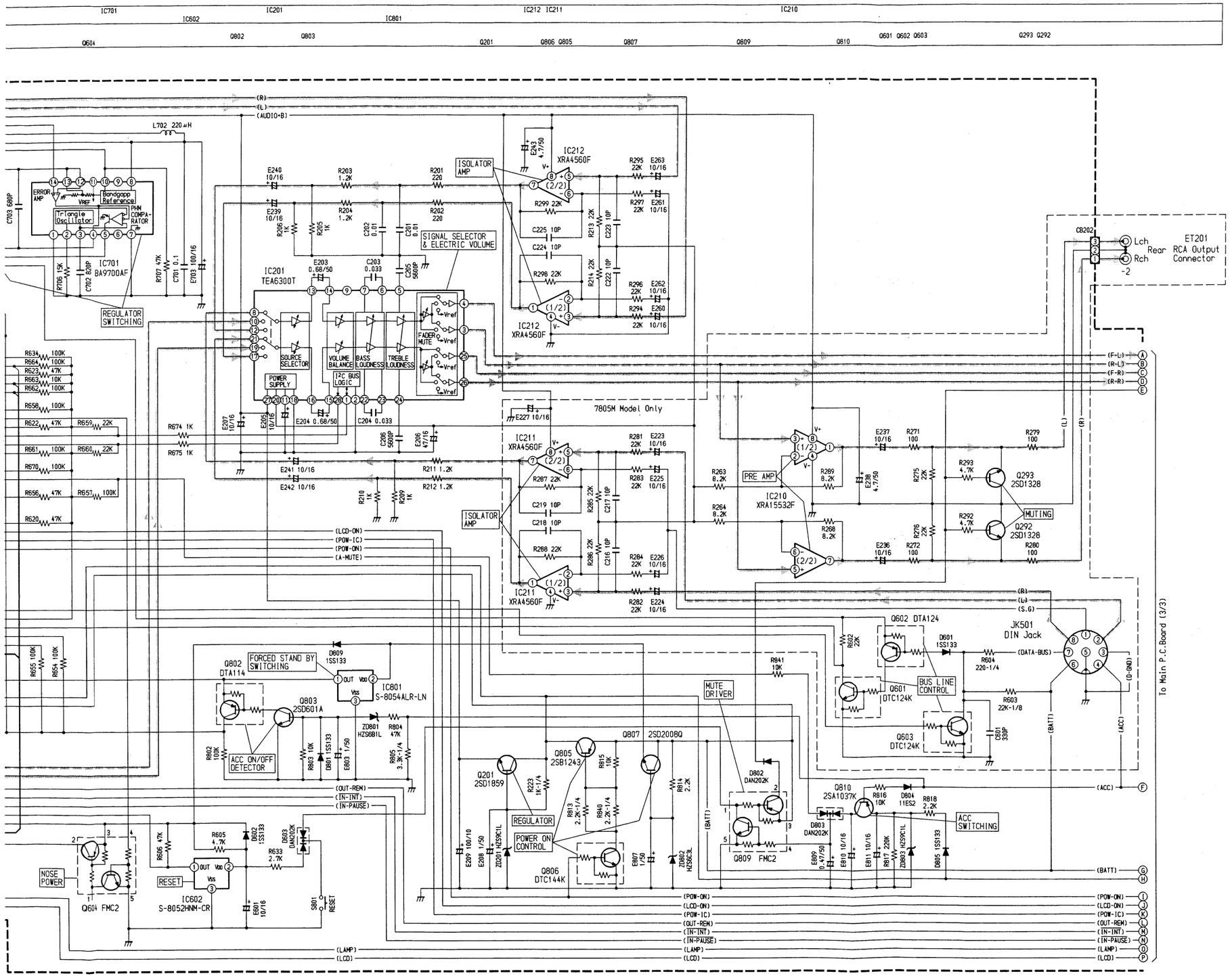
To Main P.C.Board (1/3)

From Front P.C.Board (CH401)

7805M/ 7804M	7805M/ 7804M

NOTES:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. P = $\frac{1}{1{,}000{,}000}$



IC201

1	PS	15	SIG
2	0V	16	SIG
3	SIG	17	4.3V
4	SIG	18	0V
5	SIG	19	SIG
6	SIG	20	4.3V
7	SIG	21	4.3V
8	4.4V	22	SIG
9	NC	23	SIG
10	SIG	24	SIG
11	8.6V	25	SIG
12	4.3V	26	SIG
13	SIG	27	8.6V
14	SIG	28	PS

○IC210

1	SIG
2	SIG
3	SIG
4	0V
5	SIG
6	SIG
7	SIG
8	8.6V

IC602

1	5V
2	5V
3	0V

IC801

1	5.2V
2	6.6V
3	0V

IC212, ○IC211

1	4.3V / SIG	TAPE, RADIO / CHANGER
2	4.3V / SIG	TAPE, RADIO / CHANGER
3	4.3V / SIG	TAPE, RADIO / CHANGER
4	0V / 0V	TAPE, RADIO / CHANGER
5	4.3V / SIG	TAPE, RADIO / CHANGER
6	4.3V / SIG	TAPE, RADIO / CHANGER
7	4.3V / SIG	TAPE, RADIO / CHANGER
8	8.6V / 8.6V	TAPE, RADIO / CHANGER

IC701

1	0V	8	PS
2	0.9V	9	NC
3	PS	10	5V
4	1.25V	11	NC
5	1.25V	12	1.25V
6	NC	13	1.25V
7	0V	14	1.25V

IC601

1	4.8V	21	0V	41	4.9V	61	PS
2	4.8V	22	4.9V	42	4.9V	62	0V
3	0V	23	4.9V	43	0V	63	0V
4	0V	24	4.9V	44	0V	64	0V
5	SIG	25	4.9V	45	0.4V	65	0V
6	SIG	26	0V	46	4.8V	66	0V
7	0V	27	4.9V	47	0V	67	0V
8	SIG	28	4.9V	48	0V	68	PS
9	SIG	29	4.9V	49	0V	69	PS
10	4.9V	30	4.9V	50	0V	70	PS
11	5.3V	31	4.9V	51	0V	71	PS
12	5.3V	32	4.9V	52	0V	72	PS
13	PS	33	4.9V	53	4.9V	73	PS
14	5.3V	34	4.9V	54	0V	74	4.9V
15	5.3V	35	4.9V	55	4.9V	75	4.8V
16	0V	36	PS	56	PS	76	2.4V
17	0V	37	PS	57	PS	77	PS
18	4.9V	38	0V	58	PS	78	0V
19	0V	39	PS	59	PS	79	0V
20	0V	40	4.9V	60	PS	80	0V

	E	C	B	MODE
Q703	14.4V / PS	0V / PS	14.4V / 14.1V	TAPE, RADIO / CHANGER

	1	2	3	4	5
Q019	0V	0V	0V	SIG	SIG
Q604	4.98V	4.97V	0V	0.73V	4.97V
Q809	14.27V	0V	0V	PS	14.22V

	E	C	B
Q201	0V	14.25V	9.2V
○Q292	0V	0V	0.46V
○Q293	0V	0V	0.46V
○Q601	0V	PS	PS
○Q602	4.98V	PS	PS
○Q603	0V	PS	PS
Q605	4.99V	4.87V	0V
Q606	0V	0V	4.98V
Q802	5.31V	5.3V	0V
Q803	0V	0V	0.62V
Q805	14.25V	14.19V	13.54V
Q806	0V	0.12V	4.94V
Q807	5.7V	14.25V	6.32V
Q810	9.28V	0V	8.72V

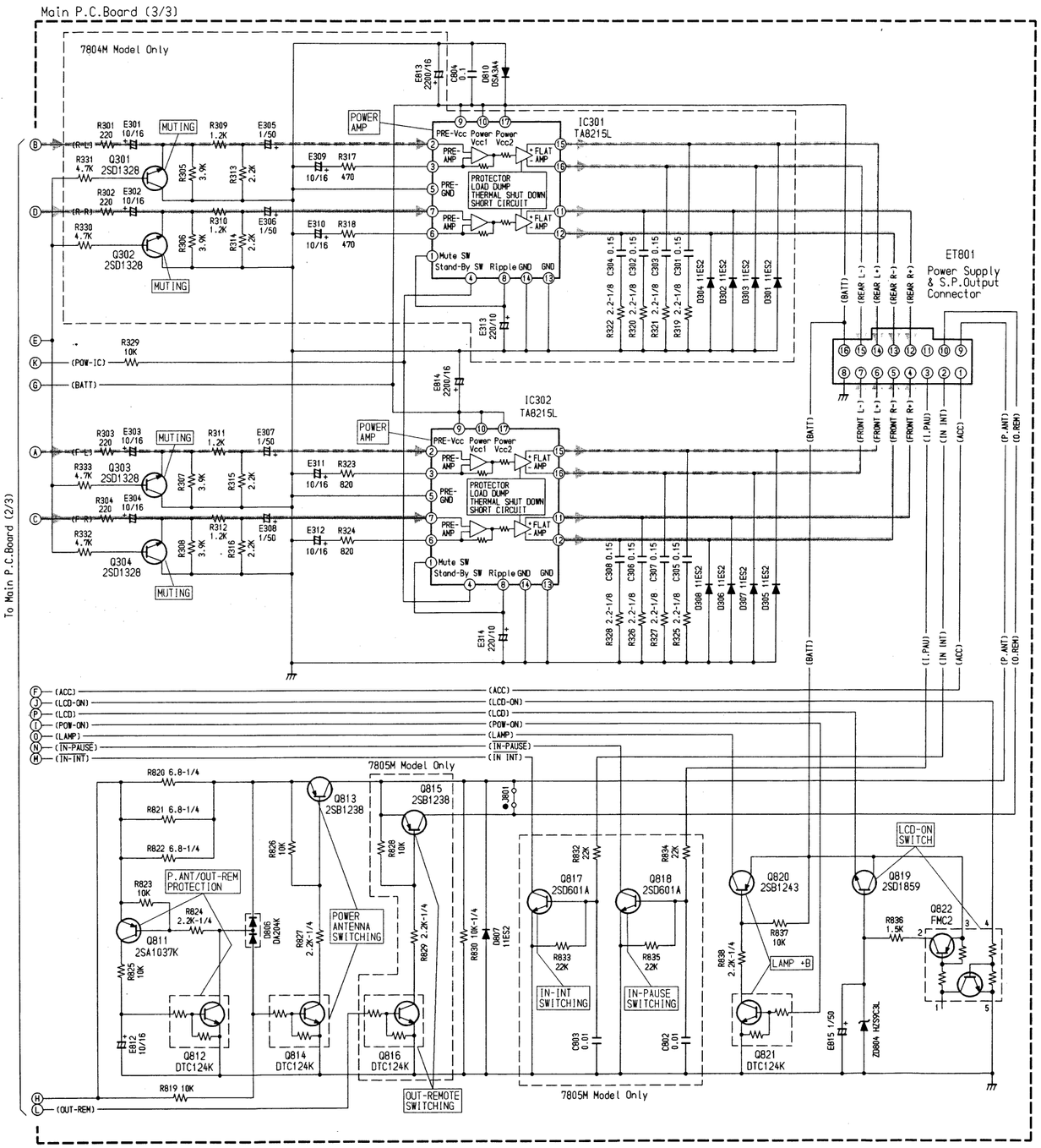
Notes : ○: For 7805M Model only,
●: For 7804M Model only,
Others : Common.

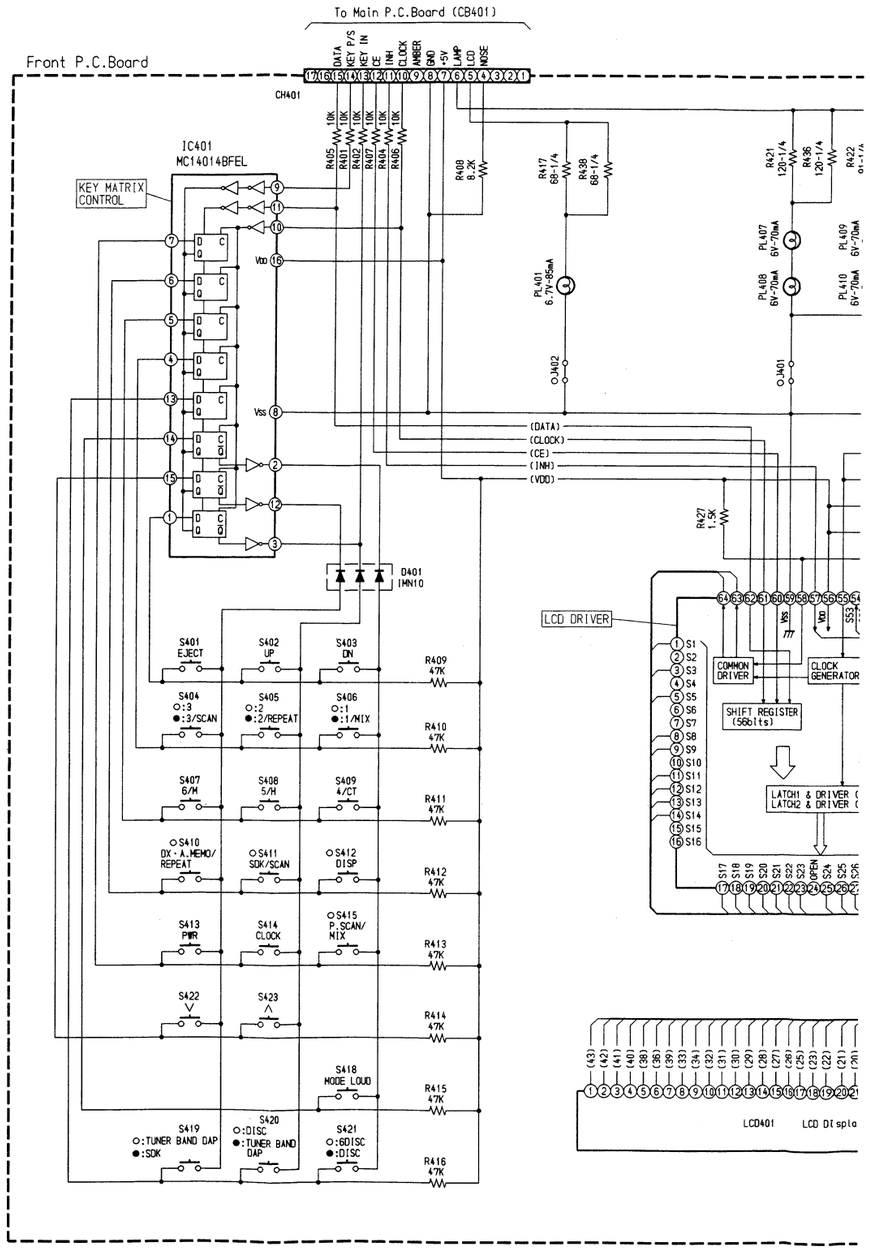
<Measuring Conditions>

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Voltmeter
3. Measuring Point Reference : Between Ground
4. Measuring Conditions : CD : Be Playing back the 2nd Music of the test CD (YEDS-18)
   TUNER : No Signal Input
   FM 98.1MHz
   MW 999kHz
   LW 216kHz

Schematic Diagram (3/4)

IC	IC301 IC302	IC401
Transistor (Q)	Q301 Q302 Q303 Q304 Q811 Q812 Q814 Q813 Q816 Q815 Q817 Q818 Q821 Q820 Q819 Q822	

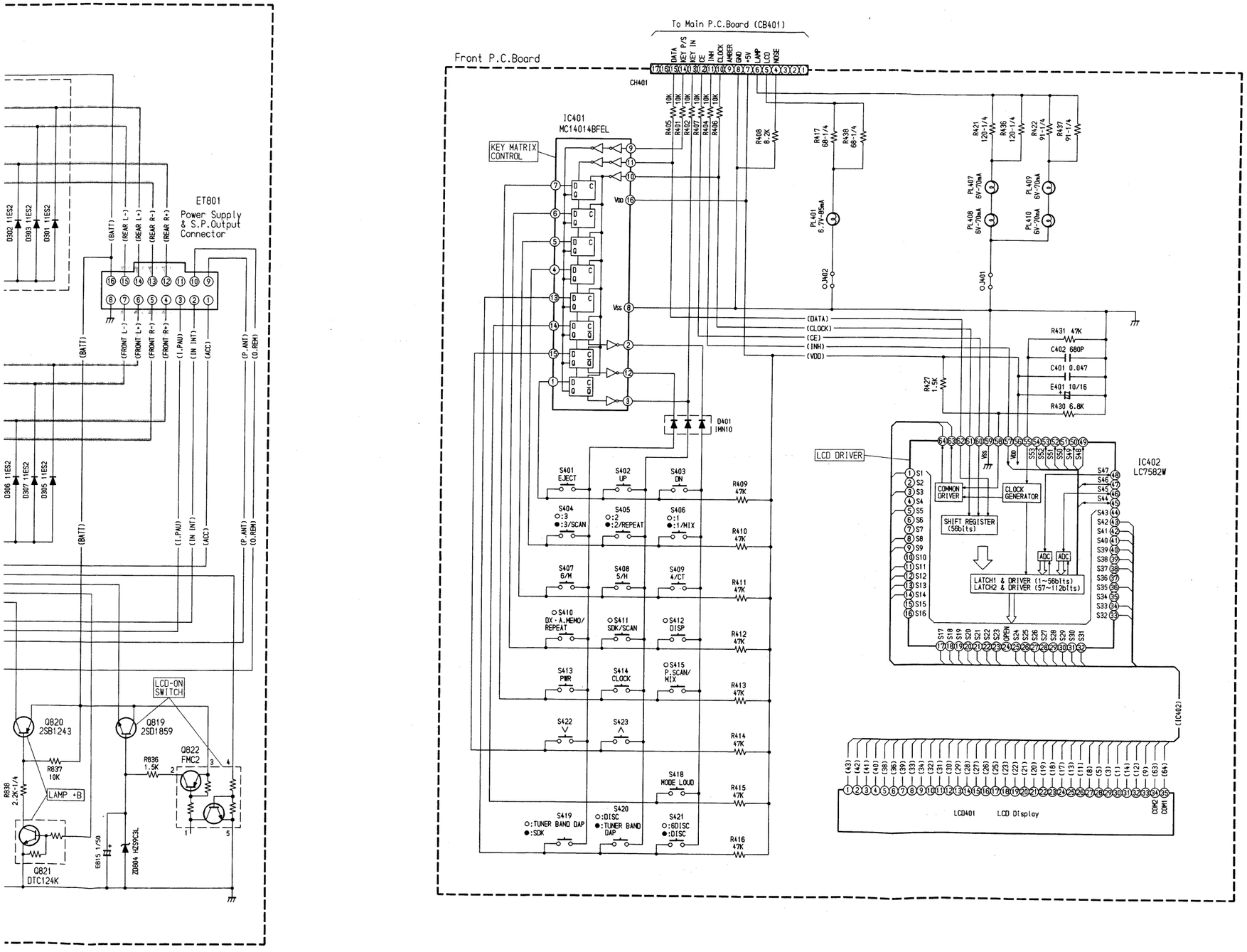




IC401

IC402

Q821 Q820 Q819 Q822



IC302, ●IC301

1	5.6V	10	14.3V
2	SIG	11	SIG
3	SIG	12	SIG
4	3.3V	13	0V
5	0V	14	0V
6	SIG	15	SIG
7	SIG	16	SIG
8	5.6V	17	14.3V
9	14.3V		

IC401

1	0V	9	PS
2	PS	10	PS
3	PS	11	PS
4	4.9V	12	PS
5	4.9V	13	4.9V
6	4.9V	14	4.9V
7	4.9V	15	4.9V
8	0V	16	4.9V

IC402

1	PS	17	PS	33	PS	49	PS
2	PS	18	PS	34	PS	50	PS
3	PS	19	PS	35	PS	51	NC
4	PS	20	PS	36	PS	52	NC
5	PS	21	PS	37	PS	53	PS
6	PS	22	PS	38	PS	54	PS
7	PS	23	PS	39	PS	55	PS
8	PS	24	NC	40	PS	56	4.9V
9	PS	25	NC	41	PS	57	5V
10	PS	26	PS	42	PS	58	NC
11	PS	27	NC	43	PS	59	NC
12	PS	28	NC	44	PS	60	PS
13	PS	29	PS	45	PS	61	PS
14	PS	30	PS	46	PS	62	PS
15	PS	31	PS	47	PS	63	PS
16	PS	32	PS	48	PS	64	PS

	1	2	3	4	5
Q822	14.27V	4.95V	0V	14.19V	0V

	E	C	B
●Q301	0V	0V	0.46V
●Q302	0V	0V	0.46V
Q303	0V	0V	0.46V
Q304	0V	0V	0.46V
Q811	4.2V	0V	14.2V
Q812	0V	14.2V	0V
Q813	14.17V	14.16V	0V
Q814	0V	0V	9.72V
○Q815	14.16V	14.16V	13.46V
○Q816	0V	0V	4.97V
○Q817	0V	5.24V	0V
○Q818	0V	5.26V	0V
Q819	9.21V	14.25V	9.82V
Q820	14.25V	14.19V	13.58V
Q821	0V	0V	4.95V

Notes : ○: For 7805M Model only,
●: For 7804M Model only,
Others : Common.

<Measuring Conditions>

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Voltmeter
3. Measuring Point Reference : Between Ground
4. Measuring Conditions : CD : Be Playing back the 2nd Music of the test CD (YEDS-18)
   TUNER : No Signal Input
   FM 98.1MHz
   MW 999kHz
   LW 216kHz

NOTES:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1,000,000}$

7805M/
7804M

Schematic Diagram (4/4)

IC	IC1103	IC1102	IC1101
Transistor (Q,PT)	PT1501 PT1502 PT1503 PT1504 PT1505 Q1103 Q1502 Q1501 Q1503 Q1508	IC1507 Q1111 Q1102 Q1112 Q1114	IC1109 Q1115 IC1106 Q1113 IC1210 Q1116

LED P.C.Board

DP-Main P.C.Board

Pick Up Unit (HD1201)

IC1103 BA6298FP

IC1102 TA8191F RF AMP SERVO CONTROL

IC1101 TC9236AF DIGITAL SIGNAL PROCESSOR

IC1106 SM5840CS

IC1507 LB1638M

IC1109 TC7SU04F

IC1210 NJM78L05UA REGULATOR

Q1501 2SB1188

Q1503 2SD1383K

Q1502 DTC124EU

Q1103 2SB1132

Q1508 2SB1132

Q1111 2SC2412K

Q1102 2SA1037K

Q1115 DTA124EU

Q1112 DTC114TU

Q1113 DTC114TU

Q1114 DTC124EU

Q1116 DTC124EU

D1502 DSM10

D1501 DAN202K

D1104 DAN202K

PS5022×5

PT1501 DISC IN DETECTOR

PT1502 EJECT END DETECTOR

PT1503 8/12cm DISCRIMINATE DETECTOR

PT1504 8cm DISC END DETECTOR

PT1505 RELOAD DETECTOR

SOLENOID DRIVER

SUB BEAM CONTROL

SWITCHING

SCRATCH CD DETECTOR

LASER CONTROL

LASER DIODE

M1303 SLED MOTOR

M1302 SPINDLE MOTOR

S1302 LIMIT SW

M1301 LOADING MOTOR

S1301 CAN END SW

LOADING MOTOR DRIVER

REGULATOR

INVERTER

PD CONTROL

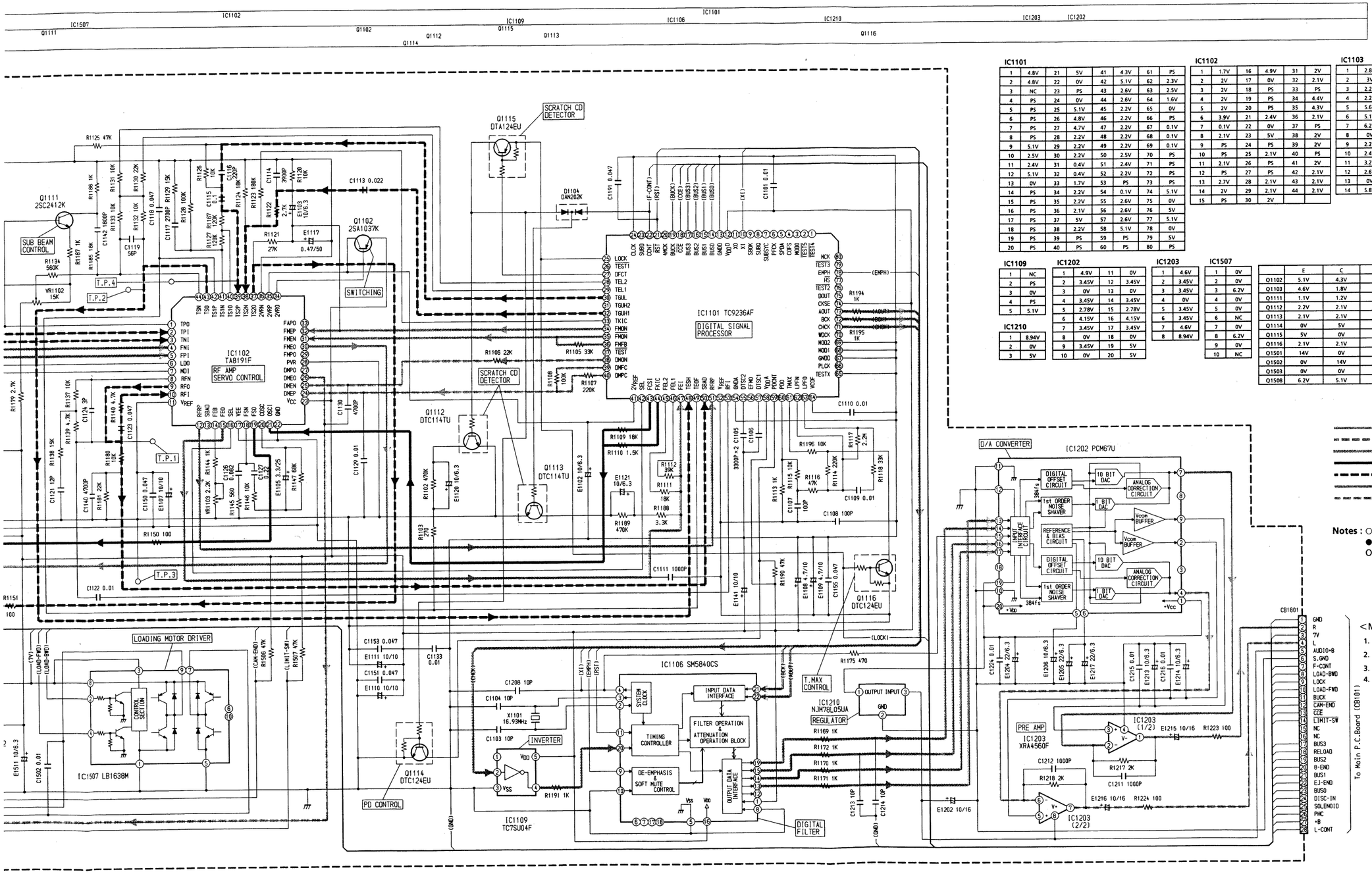
DIGITAL FILTER

T.MAX CONTROL

TRACKING/FOCUS/SLED/ SPINDLE SERVO DRIVER

7805M/ 7804M	7805M/ 7804M

NOTES:
1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. P = $\frac{1}{1,000,000}$



IC1101							
1	4.8V	21	5V	41	4.3V	61	PS
2	4.8V	22	0V	42	5.1V	62	2.3V
3	NC	23	PS	43	2.6V	63	2.5V
4	PS	24	0V	44	2.6V	64	1.6V
5	PS	25	5.1V	45	2.2V	65	0V
6	PS	26	4.8V	46	2.2V	66	PS
7	PS	27	4.7V	47	2.2V	67	0.1V
8	PS	28	2.2V	48	2.2V	68	0.1V
9	5.1V	29	2.2V	49	2.2V	69	0.1V
10	2.5V	30	2.2V	50	2.5V	70	PS
11	2.4V	31	0.4V	51	2.4V	71	PS
12	5.1V	32	0.4V	52	2.2V	72	PS
13	0V	33	1.7V	53	PS	73	PS
14	PS	34	2.2V	54	0.1V	74	5.1V
15	PS	35	2.2V	55	2.6V	75	0V
16	PS	36	2.1V	56	2.6V	76	5V
17	PS	37	5V	57	2.6V	77	5.1V
18	PS	38	2.2V	58	5.1V	78	0V
19	PS	39	PS	59	PS	79	5V
20	PS	40	PS	60	PS	80	PS

IC1102					
1	1.7V	16	4.9V	31	2V
2	2V	17	0V	32	2.1V
3	2V	18	PS	33	PS
4	2V	19	PS	34	4.4V
5	2V	20	PS	35	4.3V
6	3.9V	21	2.4V	36	2.1V
7	0.1V	22	0V	37	PS
8	2.1V	23	5V	38	2V
9	PS	24	PS	39	2V
10	PS	25	2.1V	40	PS
11	2.1V	26	PS	41	2V
12	PS	27	PS	42	2.1V
13	2.7V	28	2.1V	43	2.1V
14	2V	29	2.1V	44	2.1V
15	PS	30	2V		

IC1103			
1	2.8V	15	5.8V
2	3V	16	2.1V
3	2.2V	17	3.1V
4	2.2V	18	2.6V
5	5.6V	19	2V
6	5.1V	20	2.2V
7	6.2V	21	6.2V
8	0V	22	6.2V
9	2.2V	23	2.1V
10	2.4V	24	2.2V
11	3.2V	25	2.1V
12	2.6V	26	2.7V
13	0V	27	3V
14	5.8V	28	0V

IC1106	
1	5.1V
2	2.6V
3	2.6V
4	PS
5	0V
6	0V
7	0V
8	5.1V
9	0V
10	0V
11	4.9V
12	PS
13	PS
14	PS
15	PS
16	5.1V
17	0V
18	0V
19	PS
20	PS
21	PS
22	PS

IC1109	
1	NC
2	PS
3	0V
4	PS
5	5.1V

IC1202			
1	4.9V	11	0V
2	3.45V	12	3.45V
3	0V	13	0V
4	3.45V	14	3.45V
5	2.78V	15	2.78V
6	4.15V	16	4.15V
7	3.45V	17	3.45V
8	0V	18	0V
9	3.45V	19	5V
10	0V	20	5V

IC1203	
1	4.6V
2	3.45V
3	3.45V
4	0V
5	3.45V
6	3.45V
7	4.6V
8	8.94V

IC1507	
1	0V
2	0V
3	6.2V
4	0V
5	0V
6	NC
7	0V
8	6.2V
9	0V
10	NC

IC1210	
1	8.94V
2	0V
3	5V

	E	C	B
Q1102	5.1V	4.3V	4.5V
Q1103	4.6V	1.8V	4V
Q1111	1.1V	1.2V	1.8V
Q1112	2.2V	2.1V	0V
Q1113	2.1V	2.1V	5V
Q1114	0V	5V	0V
Q1115	5V	0V	5V
Q1116	2.1V	2.1V	5V
Q1501	14V	0V	14V
Q1502	0V	14V	0V
Q1503	0V	0V	0V
Q1508	6.2V	5.1V	5.6V

R-ch Signal Line
L-ch Signal Line
CD Signal Line (Digital)
Focus Servo Signal Line
Tracking Servo Signal Line
Sled Servo Signal Line
Spindle Servo Signal Line

Notes : ○: For 7805M Model only,
●: For 7804M Model only,
Others : Common.

<Measuring Conditions>

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Voltmeter
3. Measuring Point Reference : Between Ground
4. Measuring Conditions : CD : Be Playing back the 2nd Music of the test CD (YEDS-18)
   TUNER : No Signal Input
   FM 98.1MHz
   MW 999kHz
   LW 216kHz

Electrical Parts List

Resistor : Carbon resistors under 1 / 4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Capacitor : μF=microfarads, pF=picofarads

Abbreviations

RES.=	Resistor	CAP.=	Capacitor
C.F.=	Carbon Film	ELY.=	Electrolytic
M.F.=	Metal Film	CER.=	Ceramic
M.O.=	Metal Oxide Film	MYL.=	Mylar
M.P.=	Metal Plate	TAN.=	Tantalum
TR.=	Transistor	POLY.=	Polystyrol
TRANS.=	Transformer	PP.=	Polypropylene
CP.=	Chip	PLT.=	Polyethylene
		PF.=	Polyester Film

Main P. C. Board

IC's

	Symbol No.	Part No.	Description
	IC003	51T65379F22	XRA4558F
	IC004	51T35504W02	LC7219
	IC007	51T15655W02	TDA1579T
	or	51T55490W01	TDA1581T
	IC201	51T83607F05	TEA6300T
○	IC210	51T25154W21	XRA15532F
○	IC211	51T92001F21	XRA4560F
	IC212	51T92001F21	XRA4560F
●	IC301	51T35133W01	TA8215L
	IC302	51T35133W01	TA8215L
	IC601	51T55384W08	55384W08
	IC602	51T95014F13	S-8052HNM-CR
	IC701	51T35436W02	BA9700AF
	IC801	51T95014F09	S-8054ALR-LN

Transistors

	Symbol No.	Part No.	Description
	Q001	48T73888F08	CP., FMG1
	Q002	48T62966F03	CP., DTA124
	Q003	48T62967F09	CP., DTC114TK
	Q005	48T73888F08	CP., FMG1
	Q008	48T62967F03	CP., DTC124K
	Q009	48T84234F03	2SB1238
	Q010	48T84234F03	2SB1238
	Q011	48T62967F03	CP., DTC124K
	Q012	48T80615F01	CP., 2SD1766
	Q013	48T73888F12	CP., FMC2
	Q014	48T83835F03	2SD1859
	Q017	48T52438F01	CP., 2SD601A
	Q019	48T73888F08	CP., FMG1
	Q020	48T52438F01	CP., 2SD601A
	Q201	48T83835F03	2SD1859
○	Q292	48T63788F01	CP., 2SD1328
○	Q293	48T63788F01	CP., 2SD1328
●	Q301	48T63788F01	CP., 2SD1328
●	Q302	48T63788F01	CP., 2SD1328
	Q303	48T63788F01	CP., 2SD1328
	Q304	48T63788F01	CP., 2SD1328
○	Q601	48T62967F03	CP., DTC124K
○	Q602	48T62966F03	CP., DTA124
○	Q603	48T62967F03	CP., DTC124K
	Q604	48T73888F12	CP., FMC2
	Q605	48T62966F02	CP., DTA114
	Q606	48T62967F04	CP., DTC144K
	Q703	48T15511W02	CP., 2SB1261
	Q802	48T62966F02	CP., DTA114
	Q803	48T52438F01	CP., 2SD601A
	Q805	48T84366F01	2SB1243
	Q806	48T62967F04	CP., DTC144K
	Q807	48T15289W03	2SD2008Q
	Q809	48T73888F12	CP., FMC2
	Q810	48T63420F01	CP., 2SA1037K
	Q811	48T63420F01	CP., 2SA1037K
	Q812	48T62967F03	CP., DTC124K
	Q813	48T84234F03	2SB1238
	Q814	48T62967F03	CP., DTC124K
○	Q815	48T84234F03	2SB1238
○	Q816	48T62967F03	CP., DTC124K
○	Q817	48T52438F01	CP., 2SD601A
○	Q818	48T52438F01	CP., 2SD601A
	Q819	48T83835F03	2SD1859
	Q820	48T84366F01	2SB1243
	Q821	48T62967F03	CP., DTC124K
	Q822	48T73888F12	CP., FMC2

Diodes

	Symbol No.	Part No.	Description
	D003	48T68828F11	1SS133
	D004	48T68828F11	1SS133
	D005	48T63463F01	CP., DAP202K
	D006	48T68828F11	1SS133
●	D301	48T84052F11	11ES2
●	D302	48T84052F11	11ES2
●	D303	48T84052F11	11ES2
●	D304	48T84052F11	11ES2
	D305	48T84052F11	11ES2
	D306	48T84052F11	11ES2
	D307	48T84052F11	11ES2
	D308	48T84052F11	11ES2
○	D601	48T68828F11	1SS133
	D602	48T68828F11	1SS133
	D603	48T63462F01	CP., DAN202K

Notes: ○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

Symbol No.	Part No.	Description
D701	48T15702W01	CP., SB05-05CP
D801	48T68828F11	1SS133
D802	48T63462F01	CP., DAN202K
D803	48T63462F01	CP., DAN202K
D804	48T84052F11	11ES2
D805	48T68828F11	1SS133
D806	48T64134F01	CP., DA204K
D807	48T84052F11	11ES2
D809	48T68828F11	1SS133
D810	48T68580F02	DSA3A4
ZD001	48T25766W24	Zener, HZS9C1L
ZD002	48T25766W02	Zener, HZS6A2L
ZD003	48T25766W26	Zener, HZS9C3L
ZD201	48T25766W24	Zener, HZS9C1L
ZD801	48T25766W04	Zener, HZS6B1L
ZD802	48T25766W09	Zener, HZS6C3L
ZD803	48T25766W24	Zener, HZS9C1L
ZD804	48T25766W26	Zener, HZS9C3L
Crystals		
X001	91T25806W43	7.2MHz
X601	91T25806W42	7.15909MHz
X602	91T15849W02	32.768KHz
Switch		
S801	40T16096W03	Tact, SKHHLW (RESET)
Thermistor		
TH601	48T93439F06	100K ohm
Coils		
L001	24T84175F51	57KHz
L701	24T16271W13	220μH
L702	24T16271W13	220μH
Capacitors		
C001	08S65128F69	CP., 0.01μF
C002	08S65128F57	CP., 1000pF
E002	23T25149W04	ELY., 0.47μF / 50V
E003	23S16086W03	ELY., 100μF / 16V
C004	08S65128F78	CP., 0.022μF

Symbol No.	Part No.	Description
E004	23T25149W01	ELY., 0.1μF / 50V
C005	08T15807W05	CP., 0.1μF
E005	23T25149W01	ELY., 0.1μF / 50V
C006	08S65480F31	CER., 56pF
E006	23T25149W14	ELY., 0.68F / 50V
E007	23T25149W13	ELY., 100μF / 10V
C008	08S65128F73	CP., 0.033μF
E008	23T25149W16	ELY., 22μF / 6.3V
E009	23S16086W01	ELY., 220μF / 10V
E010	23T25149W09	ELY., 10μF / 16V
C011	08T90316F23	TF, 0.033μF
C012	08T90316F31	TF, 0.15μF
C013	08S65128F69	CP., 0.01μF
E015	23T25149W09	ELY., 10μF / 16V
E016	23T25149W01	ELY., 0.1μF / 50V
C017	08S65128F78	CP., 0.022μF
E017	23T25149W05	ELY., 1μF / 50V
E018	23T25149W05	ELY., 1μF / 50V
C019	08S65128F69	CP., 0.01μF
E019	23T25149W01	ELY., 0.1μF / 50V
C020	08S65128F21	CP., 27pF
C021	08S65128F21	CP., 27pF
E021	23T25149W05	ELY., 1μF / 50V
E022	23T25149W05	ELY., 1μF / 50V
E024	23S16086W03	ELY., 100μF / 16V
C025	08S65128F59	CP., 1500pF
C026	08T90316F28	TF, 0.082μF
C027	08T90316F27	TF, 0.068μF
C028	08T90316F27	TF, 0.068μF
C029	08T90316F25	TF, 0.047μF
C030	08T90316F29	TF, 0.1μF
C031	08T90316F25	TF, 0.047μF
C032	08T90316F23	TF, 0.033μF
C035	08S65128F79	CP., 0.027μF
C036	08S65128F79	CP., 0.027μF
C037	08S65128F69	CP., 0.01μF
C038	08S65128F73	CP., 0.033μF
C040	08S65128F35	CP., 100pF
C043	08S65128F35	CP., 100pF
C099	23T82372F19	ELY., (B.P) 2.2μF / 50V
C201	08T55390W17	PF., 0.01μF
C202	08T55390W17	PF., 0.01μF
C203	08T90316F23	TF, 0.033μF
E203	23T25149W14	ELY., 0.68μF / 50V
C204	08T90316F23	TF, 0.033μF
E204	23T25149W14	ELY., 0.68μF / 50V
C205	08T55390W14	PF., 5600pF
E205	23T25149W09	ELY., 10μF / 16V
C206	08T55390W14	PF., 5600pF
E206	23T25149W12	ELY., 47μF / 16V
C207	08S65128F69	CP., 0.01μF
E207	23T25149W09	ELY., 10μF / 16V

Symbol No.	Part No.	Description
	E208	23T25149W05	ELY., 1μF / 50V
	E209	23T25149W13	ELY., 100μF / 10V
○	C216	08S65128F12	CP., 10pF
○	C217	08S65128F12	CP., 10pF
○	C218	08S65128F12	CP., 10pF
○	C219	08S65128F12	CP., 10pF
	C220	08S65128F57	CP., 1000pF
	C222	08S65128F12	CP., 10pF
	C223	08S65128F12	CP., 10pF
○	E223	23T25149W09	ELY., 10μF / 16V
	C224	08S65128F12	CP., 10pF
○	E224	23T25149W09	ELY., 10μF / 16V
	C225	08S65128F12	CP., 10pF
○	E225	23T25149W09	ELY., 10μF / 16V
○	E226	23T25149W09	ELY., 10μF / 16V
○	E227	23T25149W09	ELY., 10μF / 16V
○	E236	23T25149W09	ELY., 10μF / 16V
○	E237	23T25149W09	ELY., 10μF / 16V
○	E238	23T25149W08	ELY., 4.7μF / 50V
	E239	23T25149W09	ELY., 10μF / 16V
	E240	23T25149W09	ELY., 10μF / 16V
	E241	23T25149W09	ELY., 10μF / 16V
	E242	23T25149W09	ELY., 10μF / 16V
	E243	23T25149W08	ELY., 4.7μF / 50V
	E260	23T25149W09	ELY., 10μF / 16V
	E261	23T25149W09	ELY., 10μF / 16V
	E262	23T25149W09	ELY., 10μF / 16V
	E263	23T25149W09	ELY., 10μF / 16V
●	C301	08T90316F31	TF, 0.15μF
●	E301	23T25149W09	ELY., 10μF / 16V
●	C302	08T90316F31	TF, 0.15μF
●	E302	23T25149W09	ELY., 10μF / 16V
●	C303	08T90316F31	TF, 0.15μF
	E303	23T25149W09	ELY., 10μF / 16V
●	C304	08T90316F31	TF, 0.15μF
	E304	23T25149W09	ELY., 10μF / 16V
	C305	08T90316F31	TF, 0.15μF
●	E305	23T55405W15	ELY., 1μF / 50V
	C306	08T90316F31	TF, 0.15μF
●	E306	23T55405W15	ELY., 1μF / 50V
	C307	08T90316F31	TF, 0.15μF
	E307	23T55405W15	ELY., 1μF / 50V
	C308	08T90316F31	TF, 0.15μF
	E308	23T55405W15	ELY., 1μF / 50V
●	E309	23T55405W01	ELY., 10μF / 16V
●	E310	23T55405W01	ELY., 10μF / 16V
	E311	23T55405W01	ELY., 10μF / 16V
	E312	23T55405W01	ELY., 10μF / 16V
●	E313	23S16086W01	ELY., 220μF / 10V
	E314	23S16086W01	ELY., 220μF / 10V
	C503	08S65128F35	CP., 100pF
	C504	08S65128F35	CP., 100pF

Symbol No.	Part No.	Description
	C505	08S65128F35	CP., 100pF
	C506	08S65128F35	CP., 100pF
	C507	08S65128F35	CP., 100pF
	C513	08S65128F35	CP., 100pF
	C515	08S65128F35	CP., 100pF
○	C601	08S65128F47	CP., 330pF
	E601	23T25149W09	ELY., 10μF / 16V
	C602	08S65128F16	CP., 16pF
	E602	23T74437F32	TAN., 10μF / 16V
	C603	08S65128F16	CP., 16pF
	C604	08S65128F19	CP., 22pF
	C605	08S65128F19	CP., 22pF
	C607	08S65128F35	CP., 100pF
	C701	08S65128F76	CP., 0.1μF
	C702	08S65128F56	CP., 820pF
	C703	08S65128F55	CP., 680pF
	E703	23S16086W03	ELY., 100μF / 16V
	C704	08T15399W03	CP., 0.047μF
	E704	23S16086W01	ELY., 220μF / 10V
	E705	23S16086W01	ELY., 220μF / 10V
	E801	23S16086W01	ELY., 220μF / 10V
○	C802	08S65128F69	CP., 0.01μF
○	C803	08S65128F69	CP., 0.01μF
	E803	23T25149W05	ELY., 1μF / 50V
	C804	08S65128F76	CP., 0.1μF
	C805	08S65128F78	CP., 0.022μF
	E807	23T25149W05	ELY., 1μF / 50V
	E809	23T25149W04	ELY., 0.47μF / 50V
	E810	23T25149W09	ELY., 10μF / 16V
	E811	23T25149W09	ELY., 10μF / 16V
	E812	23T25149W09	ELY., 10μF / 16V
●	E813	23T35505W12	ELY., 2200μF / 16V
	E814	23T35505W12	ELY., 2200μF / 16V
	E815	23T25149W05	ELY., 1μF / 50V

Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)

R001	06S64995F53	1K ohm
R002	06S64995F77	10K ohm
R003	06S64995F77	10K ohm
R006	06S64995F93	47K ohm
R007	06S64995F93	47K ohm
R011	06S64995F77	10K ohm
R017	06S64995F77	10K ohm
R018	06S64995F85	22K ohm
R019	06S64995F53	1K ohm
R020	06S64995F61	2.2K ohm
R021	06S64995F53	1K ohm
R022	06S64995F71	5.6K ohm
R023	06S64995F53	1K ohm

Notes: ○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

Symbol No.	Part No.	Description
R030	06S70072F41	330 ohm 1/4W
R032	06S64995F61	2.2K ohm
R033	06S70072F53	1K ohm 1/4W
R034	06S64995F77	10K ohm
R035	06S70072F53	1K ohm 1/4W
R037	06S70072F53	1K ohm 1/4W
R041	06S64995F53	1K ohm
R042	06S64995F53	1K ohm
R049	06S64995F77	10K ohm
R052	06S64995F69	4.7K ohm
R053	06S64995F43	390 ohm
R054	06S64996F22	680K ohm
R055	06S64996F02	100K ohm
R056	06S64995F69	4.7K ohm
R057	06S64995F93	47K ohm
R058	06S64995F97	68K ohm
R059	06S64995F77	10K ohm
R060	06S64995F97	68K ohm
R061	06S64996F10	220K ohm
R062	06S64995F91	39K ohm
R063	06S64995F97	68K ohm
R064	06S64995F77	10K ohm
R065	06S64996F04	120K ohm
R066	06S64996F22	680K ohm
R067	06S64995F53	1K ohm
R069	06S64995F63	2.7K ohm
R070	06S64995F63	2.7K ohm
R071	06S64995F83	18K ohm
R072	06S64995F83	18K ohm
R073	06S64995F69	4.7K ohm
R074	06S64995F69	4.7K ohm
R084	06S64995F77	10K ohm
R085	06S64995F93	47K ohm
R086	06S64995F77	10K ohm
R087	06S64995F77	10K ohm
R088	06S64996F10	220K ohm
R089	06S64995F93	47K ohm
R092	06S64995F77	10K ohm
R098	06S64995F61	2.2K ohm
R201	06S64995F37	220 ohm
R202	06S64995F37	220 ohm
R203	06S64995F55	1.2K ohm
R204	06S64995F55	1.2K ohm
R205	06S64995F53	1K ohm
R206	06S64995F53	1K ohm
R209	06S64995F53	1K ohm
R210	06S64995F53	1K ohm
R211	06S64995F55	1.2K ohm
R212	06S64995F55	1.2K ohm
R213	06S64995F85	22K ohm
R214	06S64995F85	22K ohm
R223	06S70072F53	1K ohm 1/4W

Symbol No.	Part No.	Description
	R224	06S64995F53	1K ohm
	R225	06S64995F69	4.7K ohm
	R226	06S64996F02	100K ohm
	R227	06S64996F02	100K ohm
○	R263	06S64995F75	8.2K ohm
○	R264	06S64995F75	8.2K ohm
○	R268	06S64995F75	8.2K ohm
○	R271	06S64995F29	100 ohm
○	R272	06S64995F29	100 ohm
○	R275	06S64995F85	22K ohm
○	R276	06S64995F85	22K ohm
○	R279	06S64995F29	100 ohm
○	R280	06S64995F29	100 ohm
○	R281	06S64995F85	22K ohm
○	R282	06S64995F85	22K ohm
○	R283	06S64995F85	22K ohm
○	R284	06S64995F85	22K ohm
○	R285	06S64995F85	22K ohm
○	R286	06S64995F85	22K ohm
○	R287	06S64995F85	22K ohm
○	R288	06S64995F85	22K ohm
○	R289	06S64995F75	8.2K ohm
○	R292	06S64995F69	4.7K ohm
○	R293	06S64995F69	4.7K ohm
	R294	06S64995F85	22K ohm
	R295	06S64995F85	22K ohm
	R296	06S64995F85	22K ohm
	R297	06S64995F85	22K ohm
	R298	06S64995F85	22K ohm
	R299	06S64995F85	22K ohm
●	R301	06S64995F37	220 ohm
●	R302	06S64995F37	220 ohm
	R303	06S64995F37	220 ohm
	R304	06S64995F37	220 ohm
●	R305	06S64995F67	3.9K ohm
●	R306	06S64995F67	3.9K ohm
	R307	06S64995F67	3.9K ohm
	R308	06S64995F67	3.9K ohm
●	R309	06S64995F55	1.2K ohm
●	R310	06S64995F55	1.2K ohm
	R311	06S64995F55	1.2K ohm
	R312	06S64995F55	1.2K ohm
●	R313	06S64995F61	2.2K ohm
●	R314	06S64995F61	2.2K ohm
	R315	06S64995F61	2.2K ohm
	R316	06S64995F61	2.2K ohm
●	R317	06S64995F45	470 ohm
●	R318	06S64995F45	470 ohm
●	R319	06S53331F40	2.2 ohm 1/8W
●	R320	06S53331F40	2.2 ohm 1/8W
●	R321	06S53331F40	2.2 ohm 1/8W
●	R322	06S53331F40	2.2 ohm 1/8W

Notes : ○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

	Symbol No.	Part No.	Description
	R323	06S64995F51	820 ohm
	R324	06S64995F51	820 ohm
	R325	06S53331F40	2.2 ohm 1/8W
	R326	06S53331F40	2.2 ohm 1/8W
	R327	06S53331F40	2.2 ohm 1/8W
	R328	06S53331F40	2.2 ohm 1/8W
	R329	06S64995F77	10K ohm
●	R330	06S64995F69	4.7K ohm
●	R331	06S64995F69	4.7K ohm
	R332	06S64995F69	4.7K ohm
	R333	06S64995F69	4.7K ohm
○	R602	06S64995F85	22K ohm
○	R603	06S53330F85	22K ohm 1/8W
○	R604	06S70072F37	220 ohm 1/4W
	R605	06S64995F69	4.7K ohm
	R606	06S64995F93	47K ohm
	R607	06S64995F61	2.2K ohm
	R608	06S64995F77	10K ohm
	R609	06S64995F53	1K ohm
	R610	06S64995F53	1K ohm
	R611	06S64995F53	1K ohm
	R612	06S64995F53	1K ohm
	R613	06S64995F53	1K ohm
	R614	06S64995F53	1K ohm
	R615	06S64995F53	1K ohm
	R616	06S64995F53	1K ohm
	R617	06S64995F93	47K ohm
	R619	06S64995F93	47K ohm
	R620	06S64995F93	47K ohm
	R621	06S64995F93	47K ohm
	R622	06S64995F93	47K ohm
	R623	06S64995F93	47K ohm
	R624	06S64995F93	47K ohm
	R625	06S64995F93	47K ohm
	R627	06S64996F02	100K ohm
●	R628	06S64996F02	100K ohm
○	R629	06S64996F02	100K ohm
	R632	06S64995F77	10K ohm
	R633	06S64995F63	2.7K ohm
	R634	06S64996F02	100K ohm
	R635	06S64996F02	100K ohm
	R636	06S64996F02	100K ohm
	R637	06S64996F02	100K ohm
	R638	06S64996F02	100K ohm
	R639	06S64996F02	100K ohm
	R640	06S64996F02	100K ohm
	R641	06S64996F02	100K ohm
	R642	06S64996F02	100K ohm
	R643	06S64996F02	100K ohm
	R644	06S64996F02	100K ohm
	R645	06S64996F02	100K ohm
	R646	06S64996F02	100K ohm

Symbol No.	Part No.	Description
R647	06S64996F02	100K ohm
R650	06S64996F02	100K ohm
R651	06S64996F02	100K ohm
R652	06S64996F02	100K ohm
R653	06S64996F02	100K ohm
R654	06S64996F02	100K ohm
R655	06S64996F02	100K ohm
R656	06S64995F93	47K ohm
R657	06S64996F02	100K ohm
R658	06S64996F02	100K ohm
R659	06S64995F85	22K ohm
R660	06S64995F85	22K ohm
R661	06S64996F02	100K ohm
R662	06S64996F02	100K ohm
R663	06S64995F77	10K ohm
R664	06S64996F02	100K ohm
R665	06S64996F02	100K ohm
R666	06S64996F02	100K ohm
R667	06S64996F02	100K ohm
R668	06S64996F02	100K ohm
R670	06S64996F02	100K ohm
R671	06S64996F26	1M ohm
R672	06S64995F77	10K ohm
R673	06S64995F77	10K ohm
R674	06S64995F53	1K ohm
R675	06S64995F53	1K ohm
R676	06S64995F77	10K ohm
R702	06S64995F91	39K ohm
R703	06S70072F45	470 ohm 1/4W
R704	06S70072F45	470 ohm 1/4W
R705	06S64995F74	7.5K ohm
R706	06S64995F81	15K ohm
R707	06S64995F93	47K ohm
R708	06S64995F77	10K ohm
R802	06S64996F02	100K ohm
R803	06S64995F77	10K ohm
R804	06S64995F93	47K ohm
R805	06S70072F65	3.3K ohm 1/4W
R813	06S70072F61	2.2K ohm 1/4W
R814	06S64995F61	2.2K ohm
R815	06S64995F77	10K ohm
R816	06S64995F77	10K ohm
R817	06S64996F10	220K ohm
R818	06S64995F61	2.2K ohm
R819	06S64995F77	10K ohm
R820	06S70072F03	6.8 ohm 1/4W
R821	06S70072F03	6.8 ohm 1/4W
R822	06S70072F03	6.8 ohm 1/4W
R823	06S64995F77	10K ohm
R824	06S70072F61	2.2K ohm 1/4W
R825	06S64995F77	10K ohm

Notes : ○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

	Symbol No.	Part No.	Description
	R826	06S64995F77	10K ohm
	R827	06S70072F61	2.2K ohm 1/4W
○	R828	06S64995F77	10K ohm
○	R829	06S70072F61	2.2K ohm 1/4W
	R830	06S70072F77	10K ohm 1/4W
○	R832	06S64995F85	22K ohm
○	R833	06S64995F85	22K ohm
○	R834	06S64995F85	22K ohm
○	R835	06S64995F85	22K ohm
	R836	06S64995F57	1.5K ohm
	R837	06S64995F77	10K ohm
	R838	06S70072F61	2.2K ohm 1/4W
	R840	06S70072F61	2.2K ohm 1/4W
	R841	06S64995F77	10K ohm
	VR001	18T15356W03	220 ohm

Front P. C. Board

IC's

	IC401	51T16618W02	MC14014BFEL
	IC402	51T83905F03	LC7582W

Diode

	D401	48T94471F01	IMN10

Switches

	S401	40T10876W12	Tact, SKHLAJ (EJECT)
	S402	40T10876W12	Tact, SKHLAJ (UP)
	S403	40T10876W12	Tact, SKHLAJ (DN)
○	S404	40T55182W01	Tact, SKHVBC (3)
●	S404	40T55182W01	Tact, SKHVBC (3 / SCAN)
○	S405	40T55182W01	Tact, SKHVBC (2)
●	S405	40T55182W01	Tact, SKHVBC (2 / REPEAT)
○	S406	40T55182W01	Tact, SKHVBC (1)
●	S406	40T55182W01	Tact, SKHVBC (1 / MIX)
	S407	40T55182W01	Tact, SKHVBC (6 / M)
	S408	40T55182W01	Tact, SKHVBC (5 / H)
	S409	40T55182W01	Tact, SKHVBC (4 / CT)
○	S410	40T10876W12	Tact, SKHLAJ (DX·A.ME / REPEAT)
○	S411	40T10876W12	Tact, SKHLAJ (SDK / SCAN)
○	S412	40T10876W12	Tact, SKHLAJ (DISP)
	S413	40T55182W01	Tact, SKHVBC (PWR)
	S414	40T55182W01	Tact, SKHVBC (CLOCK)
○	S415	40T10876W12	Tact, SKHLAJ (P.SCAN / MIX)
	S418	40T55182W01	Tact, SKHVBC (MODE LOUD)
○	S419	40T55182W01	Tact, SKHVBC (TUNER BAND / D.A.P.)
●	S419	40T55182W01	Tact, SKHVBC (SDK)
○	S420	40T55182W01	Tact, SKHVBC (DISC)
●	S420	40T55182W01	Tact, SKHVBC (TUNER BAND / D.A.P)
○	S421	40T55182W01	Tact, SKHVBC (6 DISC)
●	S421	40T55182W01	Tact, SKHVBC (DISC)
	S422	40T55182W01	Tact, SKHVBC (∨)
	S423	40T55182W01	Tact, SKHVBC (∧)

Lamps

	PL401	65T55442W01	6.7V-85mA
	PL407	65T45353W02	6V-70mA
	PL408	65T45353W02	6V-70mA
	PL409	65T45353W02	6V-70mA
	PL410	65T45353W02	6V-70mA

Capacitors

	C401	08T15399W03	CP., 0.047µF
	E401	23T25149W09	ELY., 10µF / 16V
	C402	08S65128F55	CP., 680pF

Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)

	R401	06S64995F77	10K ohm
	R402	06S64995F77	10K ohm
	R404	06S64995F77	10K ohm
	R405	06S64995F77	10K ohm
	R406	06S64995F77	10K ohm
	R407	06S64995F77	10K ohm
	R408	06S64995F75	8.2K ohm
	R409	06S64995F93	47K ohm
	R410	06S64995F93	47K ohm
	R411	06S64995F93	47K ohm
	R412	06S64995F93	47K ohm
	R413	06S64995F93	47K ohm
	R414	06S64995F93	47K ohm
	R415	06S64995F93	47K ohm
	R416	06S64995F93	47K ohm
	R417	06S70072F25	68 ohm 1/4W
	R421	06S70072F31	120 ohm 1/4W
	R422	06S70072F28	91 ohm 1/4W
	R427	06S64995F57	1.5K ohm
	R430	06S64995F73	6.8K ohm

Notes : ○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

Symbol No.	Part No.	Description
R431	06S64995F93	47K ohm
R436	06S70072F31	120 ohm 1/4W
R437	06S70072F28	91 ohm 1/4W
R438	06S70072F25	68 ohm 1/4W

DP-Main P. C. Board

IC's

IC1101	51T25985W02	TC9236AF
IC1102	51T25984W01	TA8191F
IC1103	51T45577W02	BA6298FP
IC1106	51T35105W02	SM5840CS
IC1109	51T35229W01	TC7SU04F
IC1202	51T35409W03	PCM67U
IC1203	51T92001F21	XRA4560F
IC1210	51T11054W02	NJM78L05UA
IC1507	51T55288W02	LB1638M

Transistors

Q1102	48T63420F01	CP., 2SA1037K
Q1103	48T80611F01	CP., 2SB1132
Q1111	48T63417F01	CP., 2SC2412K
Q1112	48T94606F05	CP., DTC114TU
Q1113	48T94606F05	CP., DTC114TU
Q1114	48T94606F03	CP., DTC124EU
Q1115	48T94606F53	CP., DTA124EU
Q1116	48T94606F03	CP., DTC124EU
Q1501	48T80612F01	CP., 2SB1188
Q1502	48T94606F03	CP., DTC124EU
Q1503	48T81552F01	CP., 2SD1383K
Q1508	48T80611F01	CP., 2SB1132

Crystal

X1101	91T45433W92	CP., 16.93MHz

Photo Transistors

PT1501	48T15938W05	PS5022
PT1502	48T15938W05	PS5022
PT1503	48T15938W05	PS5022
PT1504	48T15938W05	PS5022
PT1505	48T15938W05	PS5022

Symbol No.	Part No.	Description
Diodes		
D1104	48T63462F01	CP., DAN202K
D1501	48T63462F01	CP., DAN202K
D1502	48T15512W01	CP., DSM10
Capacitors		
C1101	08S45676W73	CP., 0.01µF
E1101	23T25191W42	CP., ELY. 22µF / 6.3V
E1102	23T25191W05	CP., ELY. 10µF / 6.3V
C1103	08S45677W12	CP., 10pF
E1103	23T25191W05	CP., ELY. 10µF / 6.3V
C1104	08S45677W12	CP., 10pF
C1105	08S45676W67	CP., 3300pF
E1105	23T25191W16	CP., ELY. 3.3µF / 25V
C1106	08S45676W67	CP., 3300pF
C1107	08S45677W36	CP., 100pF
E1107	23S55311W23	CP., TAN. 10µF / 10V
C1108	08S45677W36	CP., 100pF
E1108	23S55311W22	CP., TAN. 4.7µF / 10V
C1109	08S45676W73	CP., 0.01µF
E1109	23S55311W22	CP., TAN. 4.7µF / 10V
C1110	08S45676W73	CP., 0.01µF
E1110	23S55311W23	CP., TAN. 10µF / 10V
C1111	08S45676W60	CP., 1000pF
E1111	23S55311W23	CP., TAN. 10µF / 10V
C1113	08S45676W76	CP., 0.022µF
E1113	23T25191W12	CP., ELY. 4.7µF / 16V
C1114	08S45676W68	CP., 3900pF
C1115	08T35374W01	CP., 0.1µF
C1116	08S45677W44	CP., 220pF
C1117	08S45676W66	CP., 2700pF
E1117	23T25191W28	CP., ELY. 0.47µF / 50V
C1118	08S45676W78	CP., 0.047µF
C1119	08S45677W30	CP., 56pF
C1120	08S45676W73	CP., 0.01µF
E1120	23T25191W05	CP., ELY. 10µF / 6.3V
C1121	08S45677W14	CP., 12pF
E1121	23T25191W05	CP., ELY. 10µF / 6.3V
C1122	08S45676W73	CP., 0.01µF
E1122	23T25191W42	CP., ELY. 22µF / 6.3V
C1123	08S45676W78	CP., 0.047µF
C1124	08S45677W05	CP., 3pF
C1126	08T35374W04	CP., 0.082µF
C1127	08T55487W02	CP., 0.22µF
E1128	23S55311W23	CP., TAN. 10µF / 10V

Symbol No.	Part No.	Description
C1129	08S45676W73	CP., 0.01μF
C1130	08S45676W69	CP., 4700pF
C1133	08S45676W73	CP., 0.01μF
C1140	08S45676W69	CP., 4700pF
E1141	23S55311W23	CP., TAN. 10μF / 10V
C1142	08S45676W64	CP., 1800pF
C1150	08S45676W78	CP., 0.047μF
C1151	08S45676W78	CP., 0.047μF
C1153	08S45676W78	CP., 0.047μF
C1155	08S45676W78	CP., 0.047μF
C1191	08S45676W78	CP., 0.047μF
E1202	23T25191W41	CP., ELY. 10μF / 16V
E1204	23T25191W42	CP., ELY. 22μF / 6.3V
E1205	23T25191W42	CP., ELY. 22μF / 6.3V
E1206	23T25191W05	CP., ELY. 10μF / 6.3V
C1208	08S45677W12	CP., 10pF
C1211	08T55401W01	CP., 1000pF
C1212	08T55401W01	CP., 1000pF
C1213	08S45677W12	CP., 10pF
E1213	23T25191W05	CP., ELY. 10μF / 6.3V
C1214	08S45677W12	CP., 10pF
E1214	23T25191W05	CP., ELY. 10μF / 6.3V
C1215	08S45676W73	CP., 0.01μF
E1215	23T25191W41	CP., ELY. 10μF / 16V
C1216	08S45676W73	CP., 0.01μF
E1216	23T25191W41	CP., ELY. 10μF / 16V
E1217	23T25191W42	CP., ELY. 22μF / 6.3V
C1224	08S45676W73	CP., 0.01μF
C1501	08S45676W73	CP., 0.01μF
E1501	23T25191W05	CP., ELY. 10μF / 6.3V
C1502	08S45676W73	CP., 0.01μF
E1511	23T25191W05	CP., ELY. 10μF / 6.3V

Resistors (All resistors are chip 1/16W±5% unless otherwise noted.)

R1102	06S45675W22	470K ohm
R1103	06S45674W43	270 ohm
R1105	06S45674W93	33K ohm
R1106	06S45674W89	22K ohm
R1107	06S45675W14	220K ohm
R1108	06S45675W06	100K ohm
R1109	06S45674W87	18K ohm
R1110	06S45674W61	1.5K ohm
R1111	06S45674W87	18K ohm
R1112	06S45674W95	39K ohm
R1113	06S45674W57	1K ohm
R1114	06S45675W14	220K ohm
R1115	06S45674W81	10K ohm
R1116	06S45674W97	47K ohm
R1117	06S45675W34	2.2M ohm
R1118	06S45674W93	33K ohm
R1120	06S45674W81	10K ohm
R1121	06S45674W91	27K ohm
R1122	06S45674W67	2.7K ohm
R1123	06S45675W12	180K ohm
R1124	06S45674W87	18K ohm
R1125	06S45674W97	47K ohm
R1126	06S45674W81	10K ohm
R1127	06S45675W08	120K ohm
R1128	06S45675W06	100K ohm
R1129	06S45674W85	15K ohm
R1130	06S45674W89	22K ohm
R1131	06S45674W81	10K ohm
R1132	06S45674W81	10K ohm
R1133	06S45674W81	10K ohm
R1134	06S45675W24	560K ohm
R1135	06S45675W06	100K ohm
R1136	06S45674W65	2.2K ohm
R1137	06S45674W81	10K ohm
R1138	06S45674W85	15K ohm
R1139	06S45674W73	4.7K ohm
R1140	06S45674W73	4.7K ohm
R1144	06S45674W57	1K ohm
R1145	06S45674W51	560 ohm
R1146	06S45674W81	10K ohm
R1147	06S45675W02	68K ohm
R1150	06S45674W33	100 ohm
R1151	06S45674W33	100 ohm
R1167	06S45675W08	120K ohm
R1169	06S45674W57	1K ohm
R1170	06S45674W57	1K ohm
R1171	06S45674W57	1K ohm
R1172	06S45674W57	1K ohm
R1175	06S45674W49	470 ohm
R1179	06S45674W67	2.7K ohm
R1180	06S45674W81	10K ohm
R1181	06S45674W89	22K ohm
R1185	06S45674W87	18K ohm
R1186	06S45674W57	1K ohm
R1187	06S45674W57	1K ohm
R1188	06S45674W69	3.3K ohm
R1189	06S45675W22	470K ohm
R1190	06S45674W97	47K ohm
R1191	06S45674W57	1K ohm
R1194	06S45674W57	1K ohm
R1195	06S45674W57	1K ohm
R1196	06S45674W81	10K ohm
R1217	06S45674W64	2K ohm
R1218	06S45674W64	2K ohm
R1221	06S64995F12	20 ohm1/10W
R1222	06S64995F12	20 ohm1/10W

Symbol No.	Part No.	Description
R1223	06S45674W33	100 ohm
R1224	06S45674W33	100 ohm
R1501	06S45674W95	39K ohm
R1502	06S45674W95	39K ohm
R1503	06S45674W95	39K ohm
R1504	06S45674W95	39K ohm
R1505	06S45674W95	39K ohm
R1506	06S45674W97	47K ohm
R1507	06S45674W97	47K ohm
R1508	06S45675W22	470K ohm
R1509	06S45674W81	10K ohm
R1510	06S45674W81	10K ohm
R1511	06S64995F64	3K ohm1/10W
R1512	06S64995F64	3K ohm1/10W
R1513	06S64995F64	3K ohm1/10W
VR1101	18T45357W20	Variable, 150Kohm
VR1102	18T45357W14	Variable, 15Kohm
VR1103	18T45357W09	Variable, 2.2Kohm

Miscellaneous

	CB401	09T55607W14	17Pin Connector
	CH401	09T55608W17	17Pin Connector
	ET001	01T15513W11	Antenna Receptacle
○	ET201	01T25455W09	RCA Output Connector
	ET801	09T55175W16	Power Supply & S.P. Output Connector
	HD1201	88T55261W01	Pick Up Unit
○	JK501	09T55493W01	DIN Jack
	LCD401	65T55398W01	LCD Display
	M1301	01V53900W77	Assy., Loading Motor (3.5V-110mA)
	M1302	59T55262W01	Motor, Spindle (3V-120mA)
	M1303	01V54100W69	Assy., Sled Motor (3.5V-110mA)
	S1301	40T71025F03	Switch, Detector (CAM END)
	S1302	40T71025F03	Switch, Detector (LIMIT)
	SD1301	01T55277W01	Assy., Solenoid

Symbol No.	Part No.	Description

Notes : ○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

Cabinet Assembly Parts List

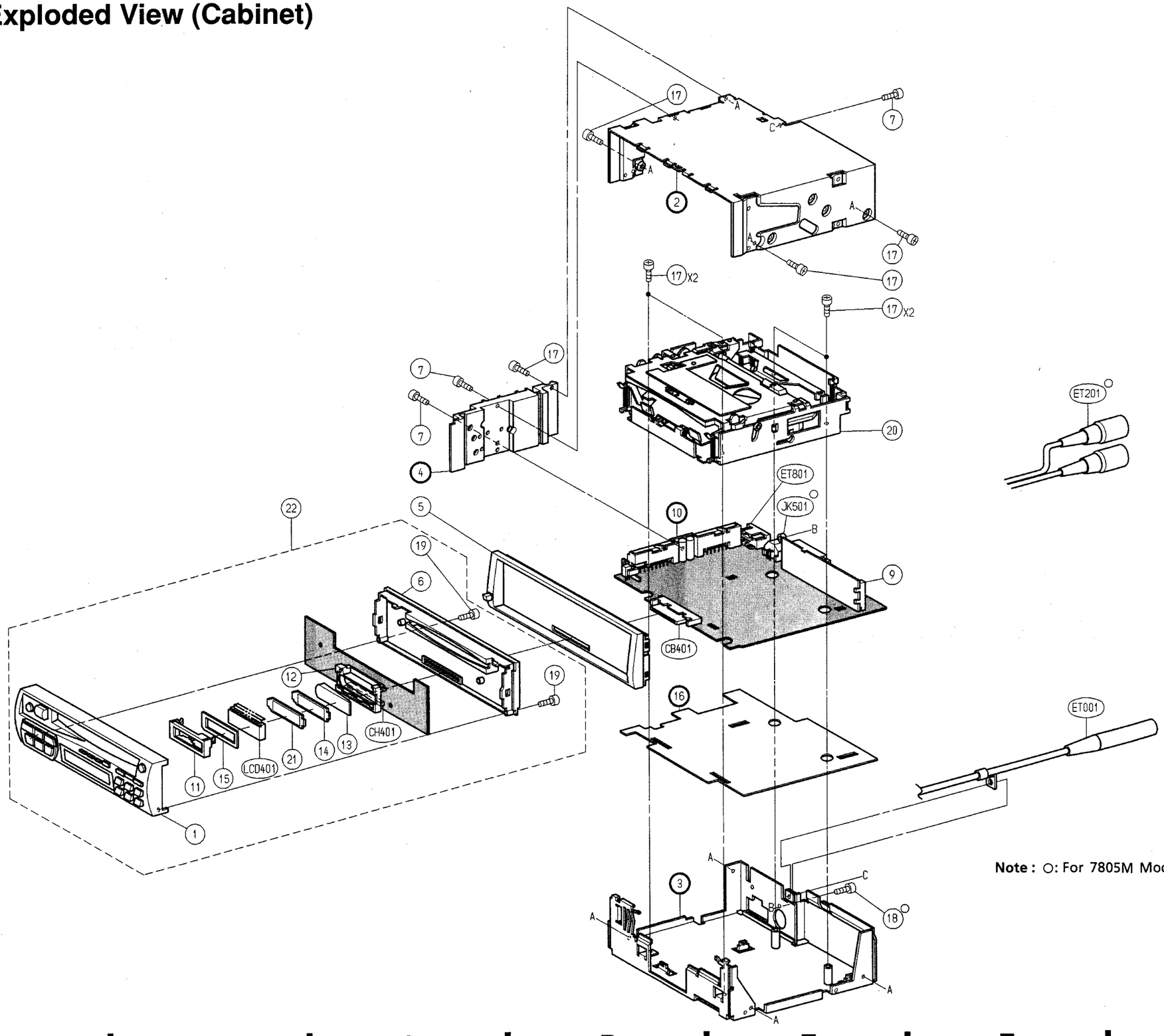
Note : No parts number on parts list are not supplied.

Symbol No.		Index	Part No.	Description
○	1	5-B	13T55425W03	Assy., Nosepiece
●	1	5-B	13T55668W02	Assy., Nosepiece
	5	3-C	13C51283W01	Assy., Front Escutcheon
	6	4-C	13T55431W01	Nose, Bottom
	7		03S44205G76	Screw, Pan (M2.6×8)
	9	3-E	77B41467W01	FM / MW / LW Tuner Unit, MB4R1010 (FE001)
	11	4-B	15A50311W01	Cover, LCD
	12	4-B	15B50312W01	Case, LCD
	13	4-C	61A50305W01	Lens, LCD
	14	4-C	26B51270W01	Reflector, Sheet (P)
	15	4-B	14A58079W01	Insulator, LCD
	17		03S44205G34	Screw, Pan (M2.6×5)
○	18	5-E	03S68555F04	Screw, Pan (M2.6×6)
	19		03S68555F36	Screw, Pan (M2×10)
	20	3-E	81D60067W01	CD Mechanism, DP24H01B
	21	4-B	26B51270W02	Reflector, Sheet (P)
○	22	3-B	01V61400W06	Assy., Nose Unit
●	22	3-B	01V61400W08	Assy., Nose Unit

Symbol No.	Index	Part No.	Description

Notes : ○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

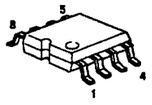
Exploded View (Cabinet)

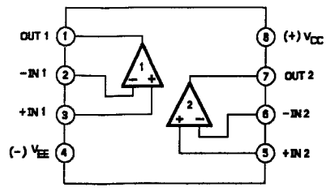


Note : ○: For 7805M Model only, Others : Common.

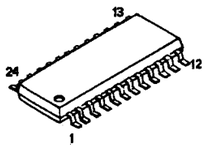
Semi - Conductor Lead Identifications

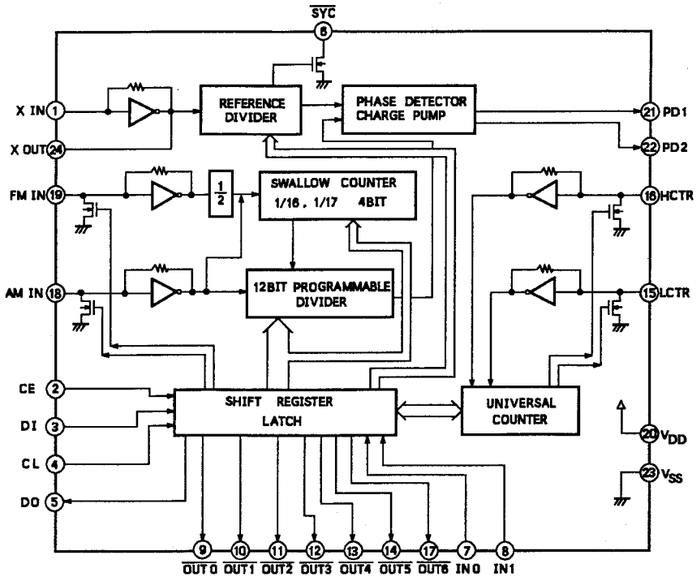
XRA4558F : IC003



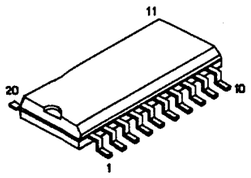


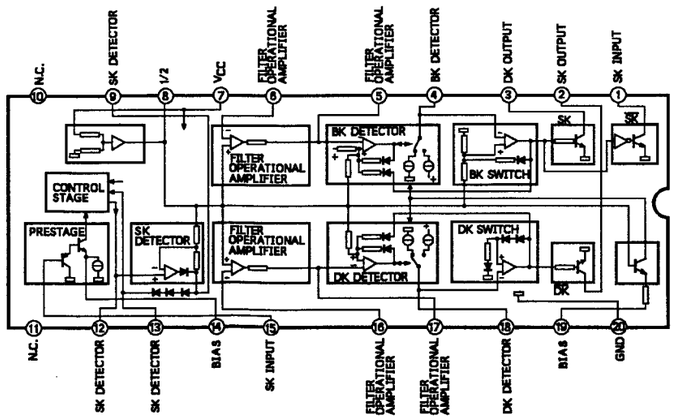
LC7219 : IC004



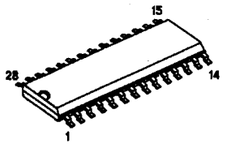


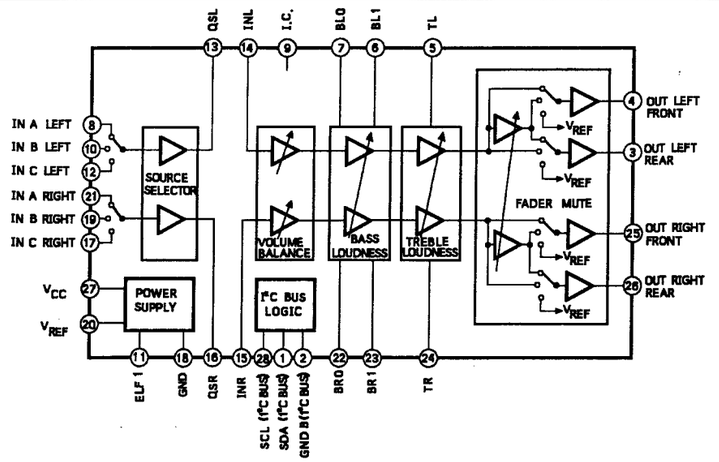
TDA1579T
TDA1581T : IC007



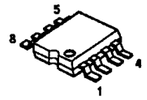


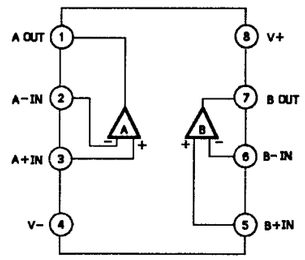
TEA6300T : IC201



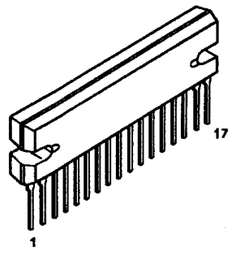


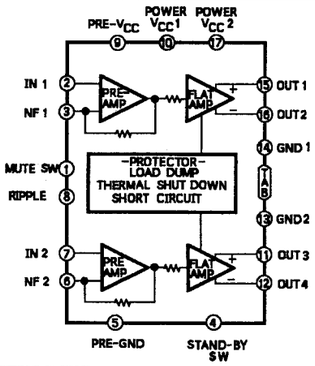
XRA15532F : ○ IC210
XRA4560F : IC212, ○ IC211, IC1203 (DP24H01B)



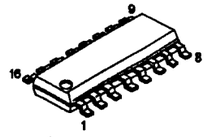


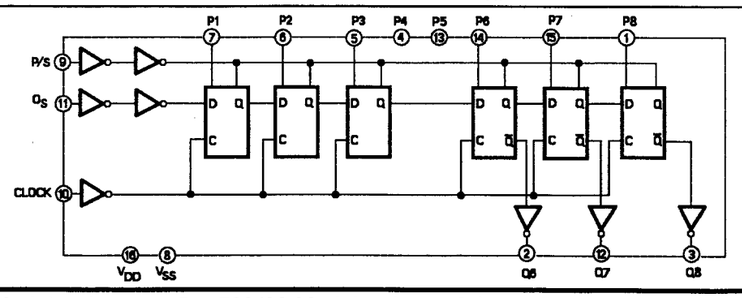
TA8215L : ● IC301, IC302





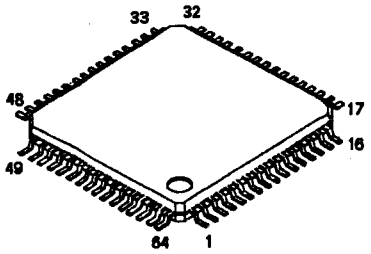
MC14014BFEL : IC401

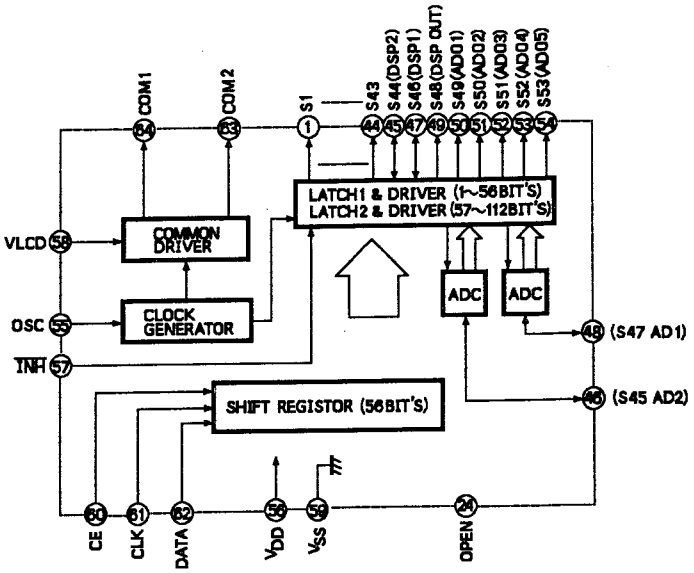




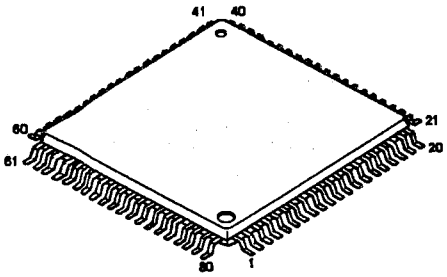
Notes : ○: For 7805M Model only, ●: For 7804M Model only, Others : Common.

LC7582W : IC402



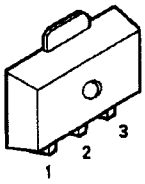


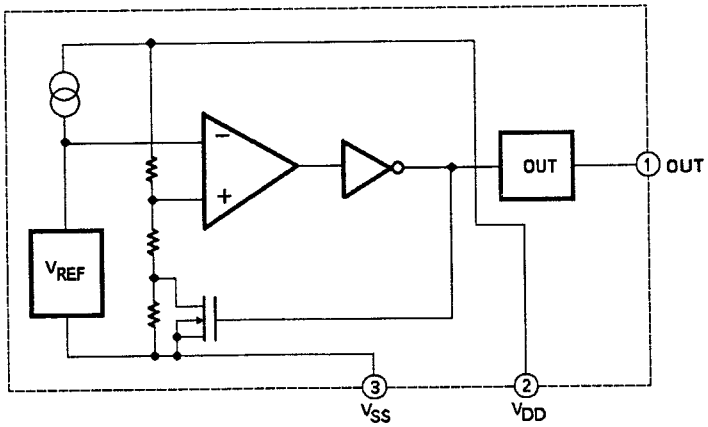
55384W08 : IC601



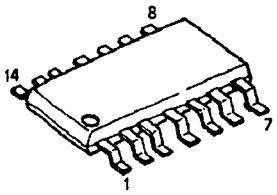
PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O
1	PH-D	I	21	PULL-D	—	41	AREA 2	I	61	CCE	O
2	PH-E	I	22	CHNG-D-O	O	42	AREA 1	I	62	LOCK	O
3	GND	—	23	OUT-REM	O	43	DK	I	63	$\overline{\text{LIMIT-SW}}$	I
4	GND	—	24	PULL-D	—	44	SK	I	64	DTS-CE	O
5	X2	—	25	POW-ON	O	45	SD	I	65	DTS-SCK	O
6	X1	—	26	A-MUTE	O	46	$\overline{\text{CAM-END}}$	I	66	DTS-STS	I
7	GND	—	27	PULL-D	—	47	LOAD-FWD	O	67	DTS-CMD	O
8	OSC1	—	28	ALM ON	O	48	LOAD-BWD	O	68	LCD-CLK	O
9	OSC2	—	29	PULL-D	—	49	SOLNOID	O	69	LCD-CE	O
10	$\overline{\text{RESET}}$	I	30	VOL-CLK	O	50	PULL-D	—	70	LCD-DATA	O
11	A-HOLD	I	31	VOL-DATA	O	51	PULL-D	—	71	LCD-INH	O
12	B-HOLD	I	32	PULL-D	—	52	F-CONT	O	72	DTS-STAT	O
13	CHNG-D-I	I	33	NOSE-POW	O	53	L-CONT	O	73	$\overline{\text{DTS-STBY}}$	O
14	$\overline{\text{IN PAUSE}}$	I	34	POW-IC	O	54	V-CONT	O	74	AV_{CC}	—
15	$\overline{\text{IN INT}}$	I	35	LCD-ON	O	55	5V	—	75	T-SENSE	I
16	TP-ALM	O	36	AMB/$\overline{\text{GRN}}$	O	56	BUS0	I/O	76	NOSE	I
17	PULL-D	—	37	KEY-P/S	O	57	BUS1	I/O	77	DTS-MUTE	I
18	$\overline{\text{ST}}$	I	38	PULL-D	—	58	BUS 2	I/O	78	PH-A	I
19	PULL-D	—	39	KEY-IN	I	59	BUS3	I/O	79	PH-B	I
20	PULL-D	—	40	AREA 3	I	60	BUCK	O	80	PH-C	I

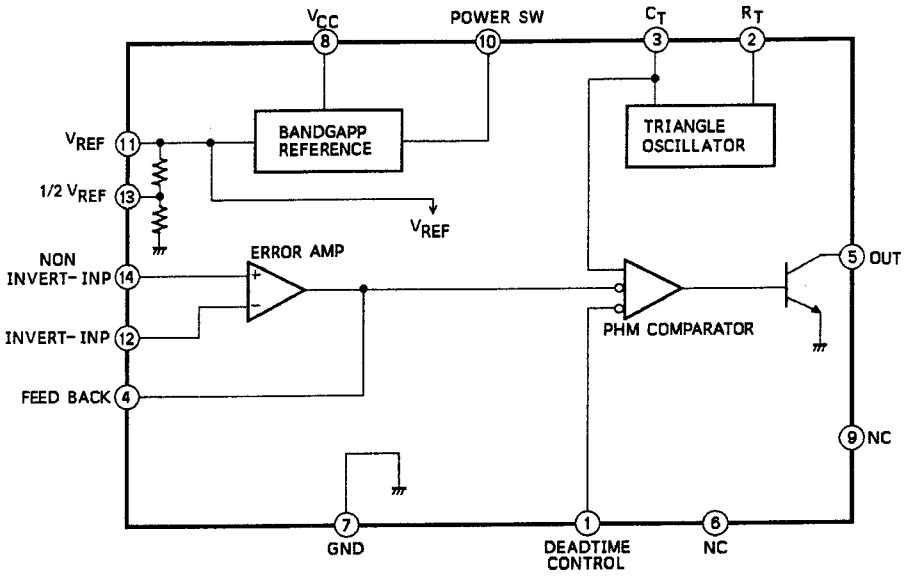
S-8052HNM-CR: IC602
S-8054ALR-LN : IC801



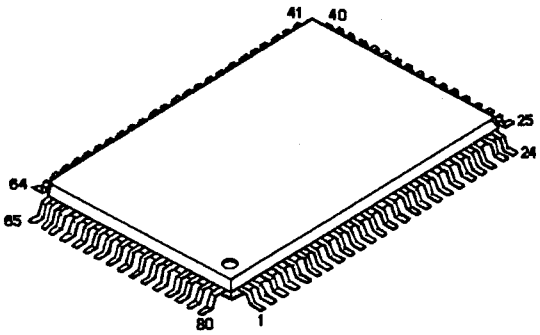


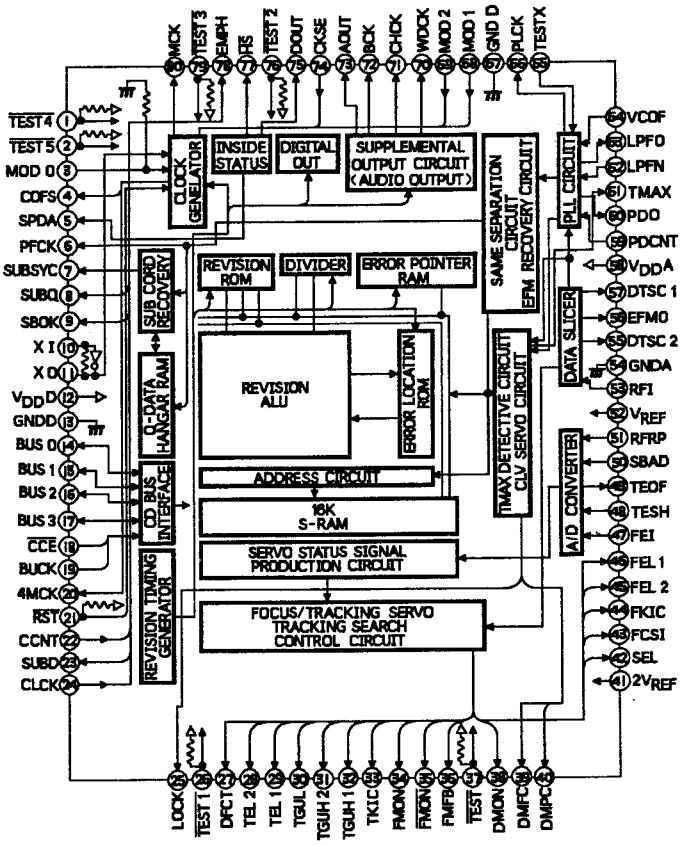
BA9700AF : IC701



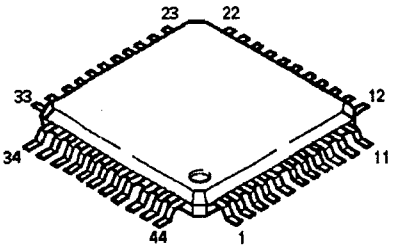


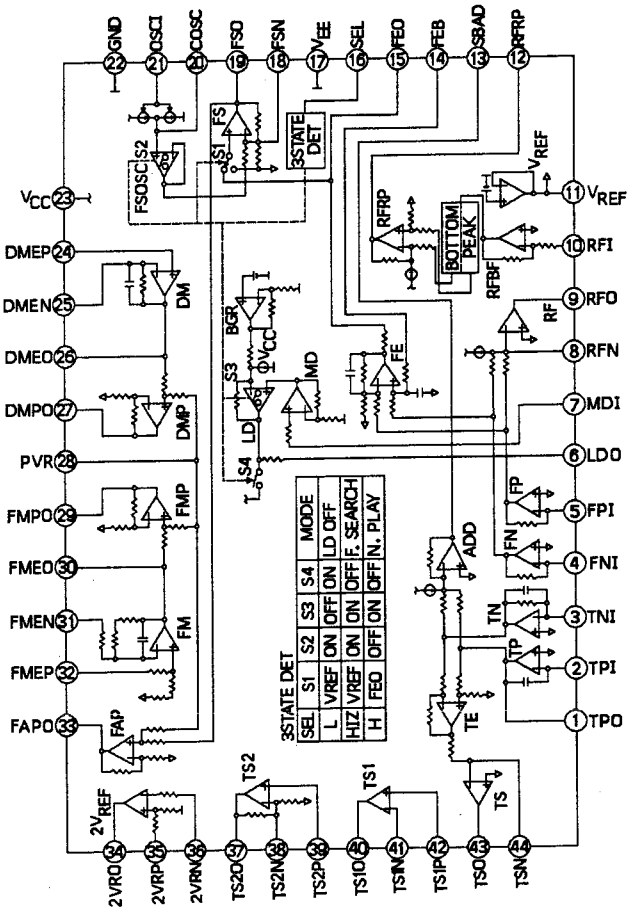
TC9236AF : IC1101 (DP24H01B)





TA8191F : IC1102 (DP24H01B)





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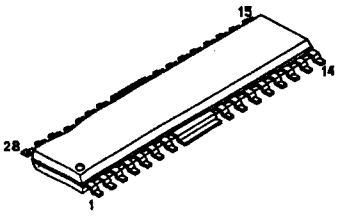
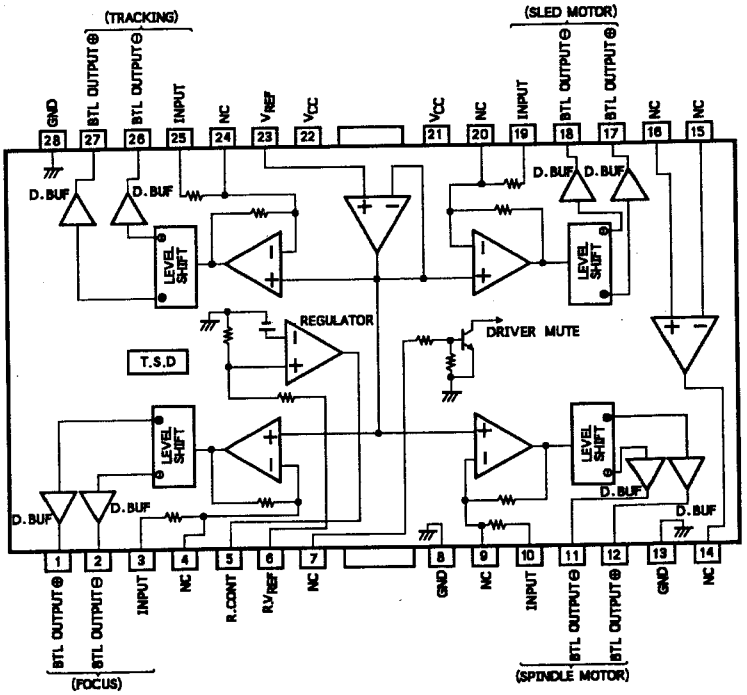
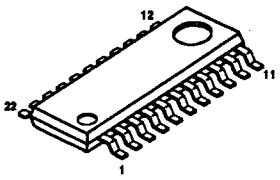
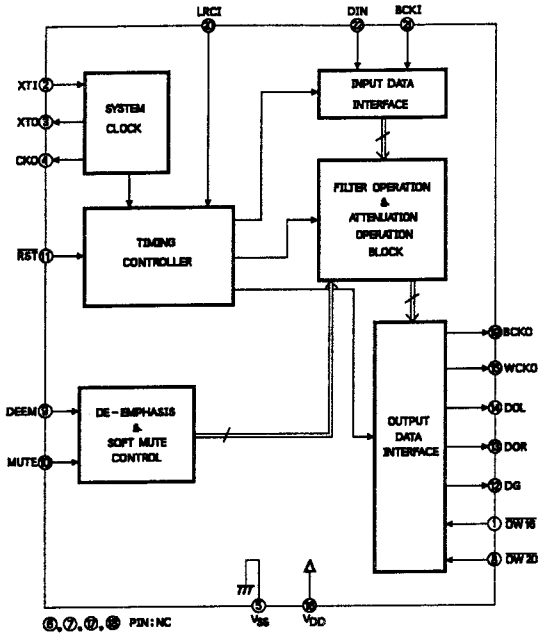




SM5840CS : IC1106 (DP24H01B)





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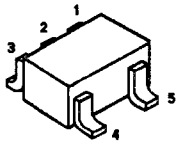
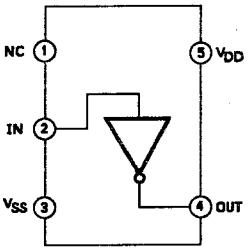
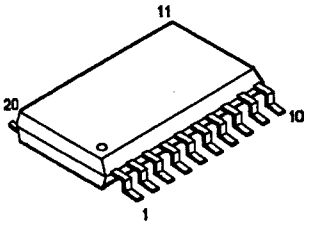
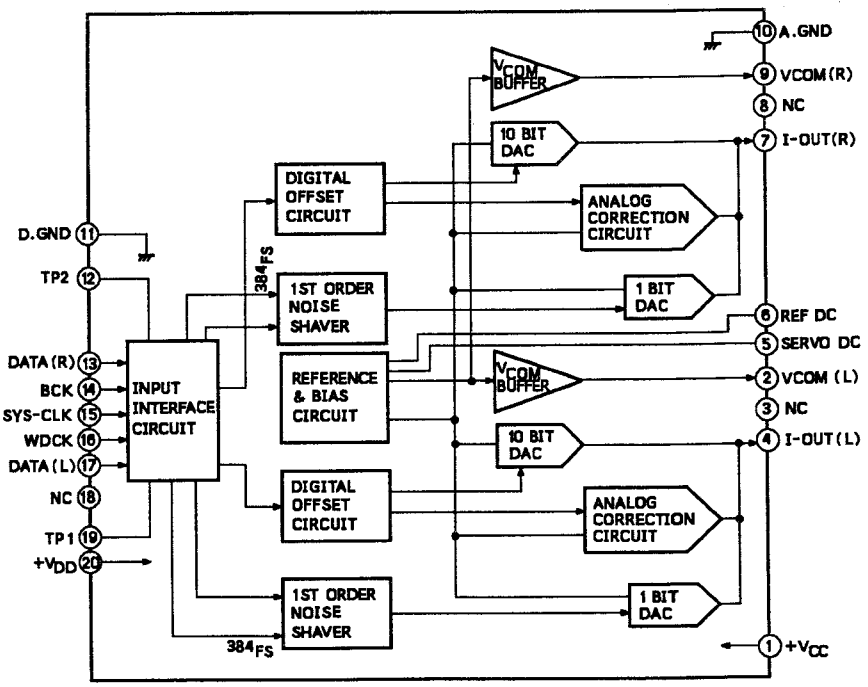


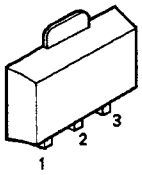


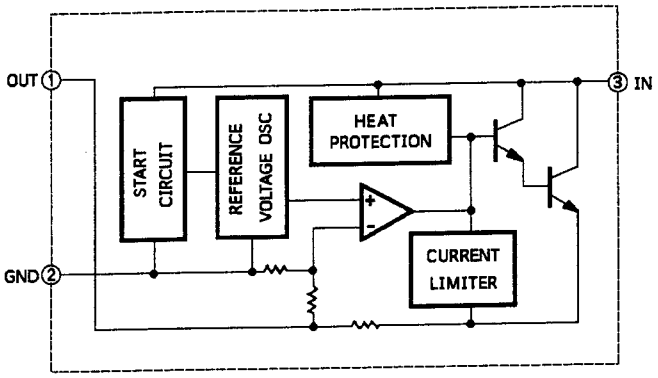
PCM67U : IC1202 (DP24H01B)





NJM78L05UA : IC1210 (DP24H01B)





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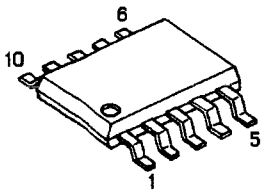

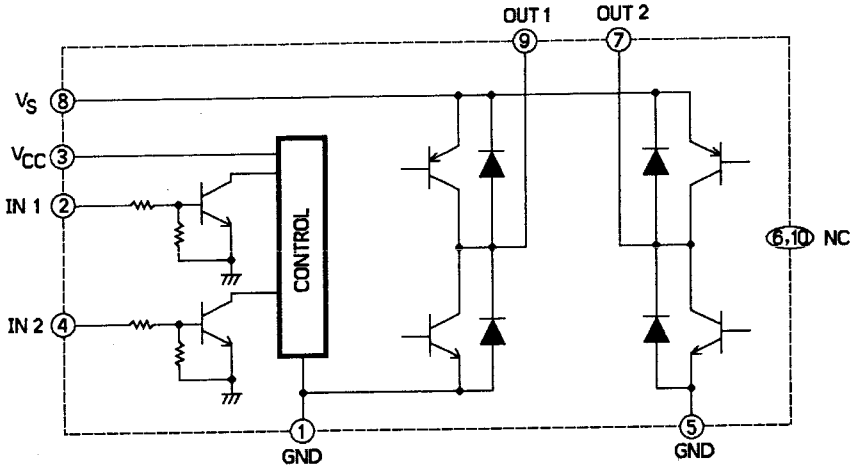

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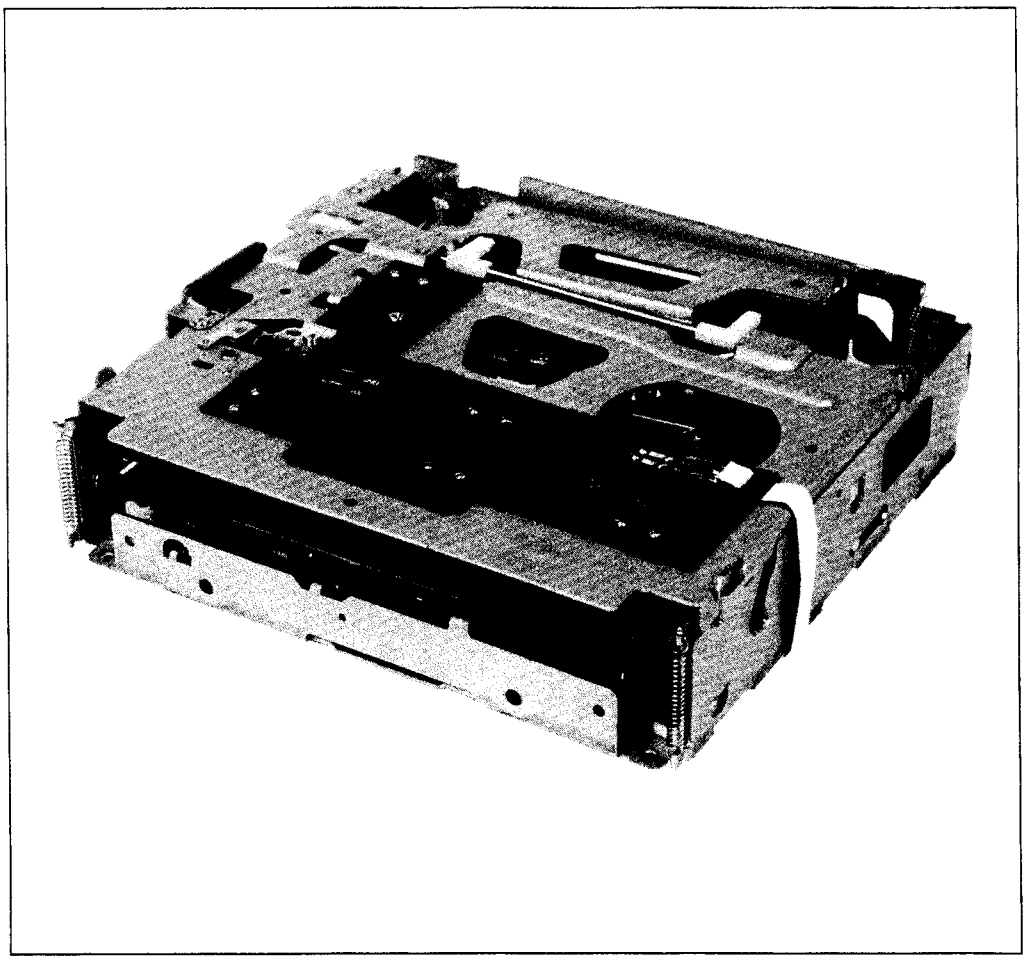
CD Player Mechanism



DP-H SERIES

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Mechanism Operation

<DP24H010 three side diagrams>

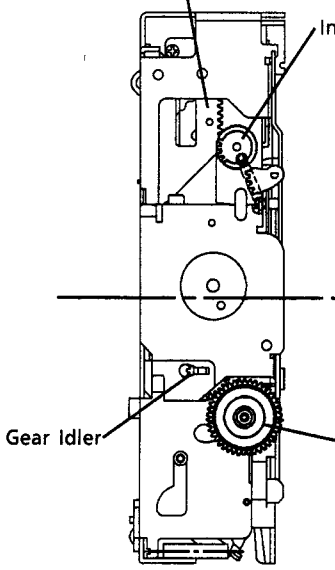
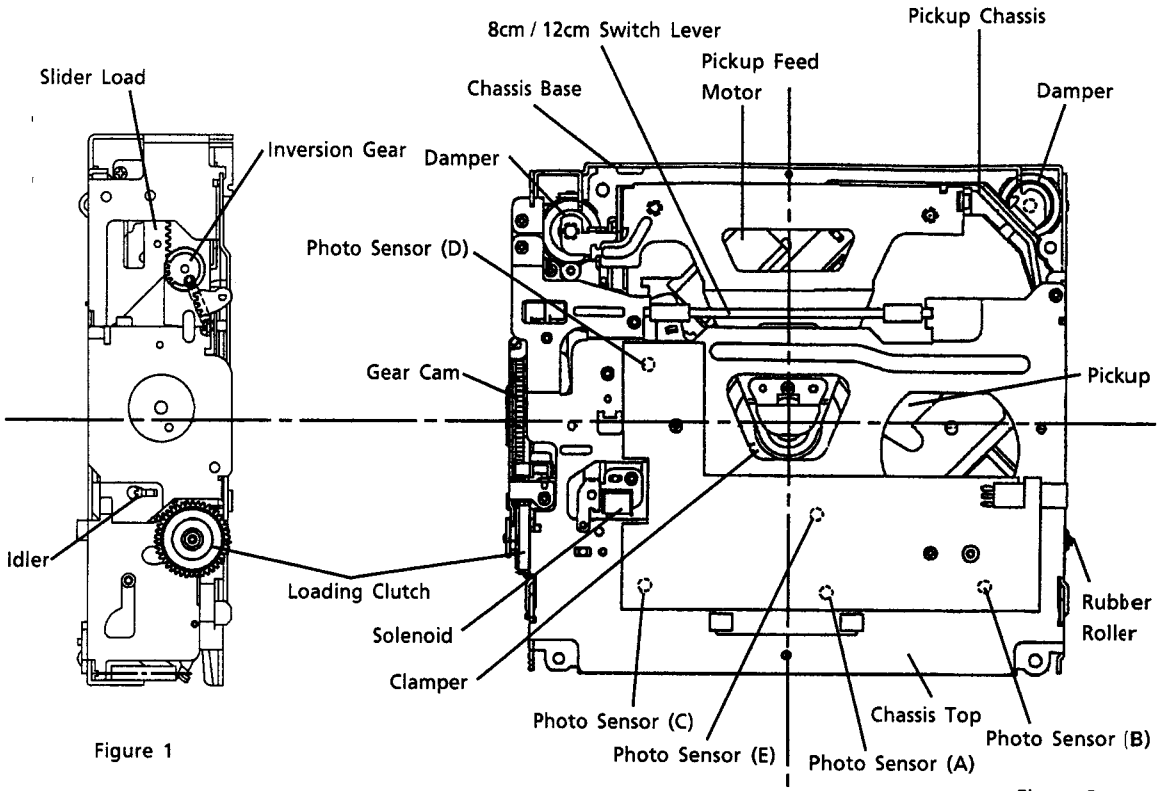


Figure 1



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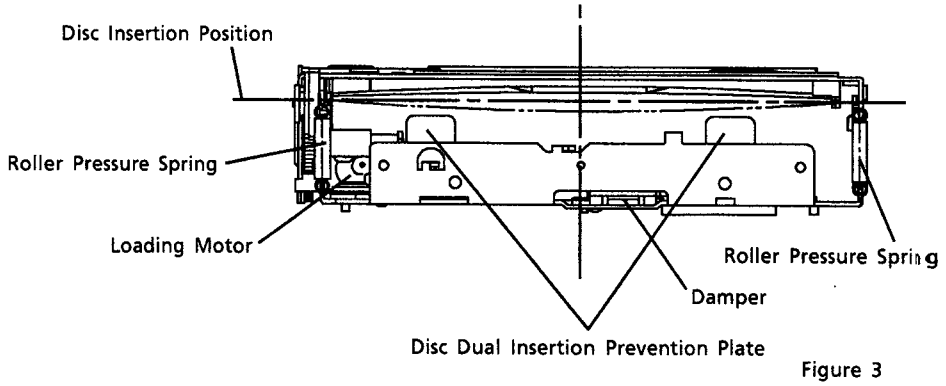


Figure 3

<DP24H010 Photo Sensor location diagram>

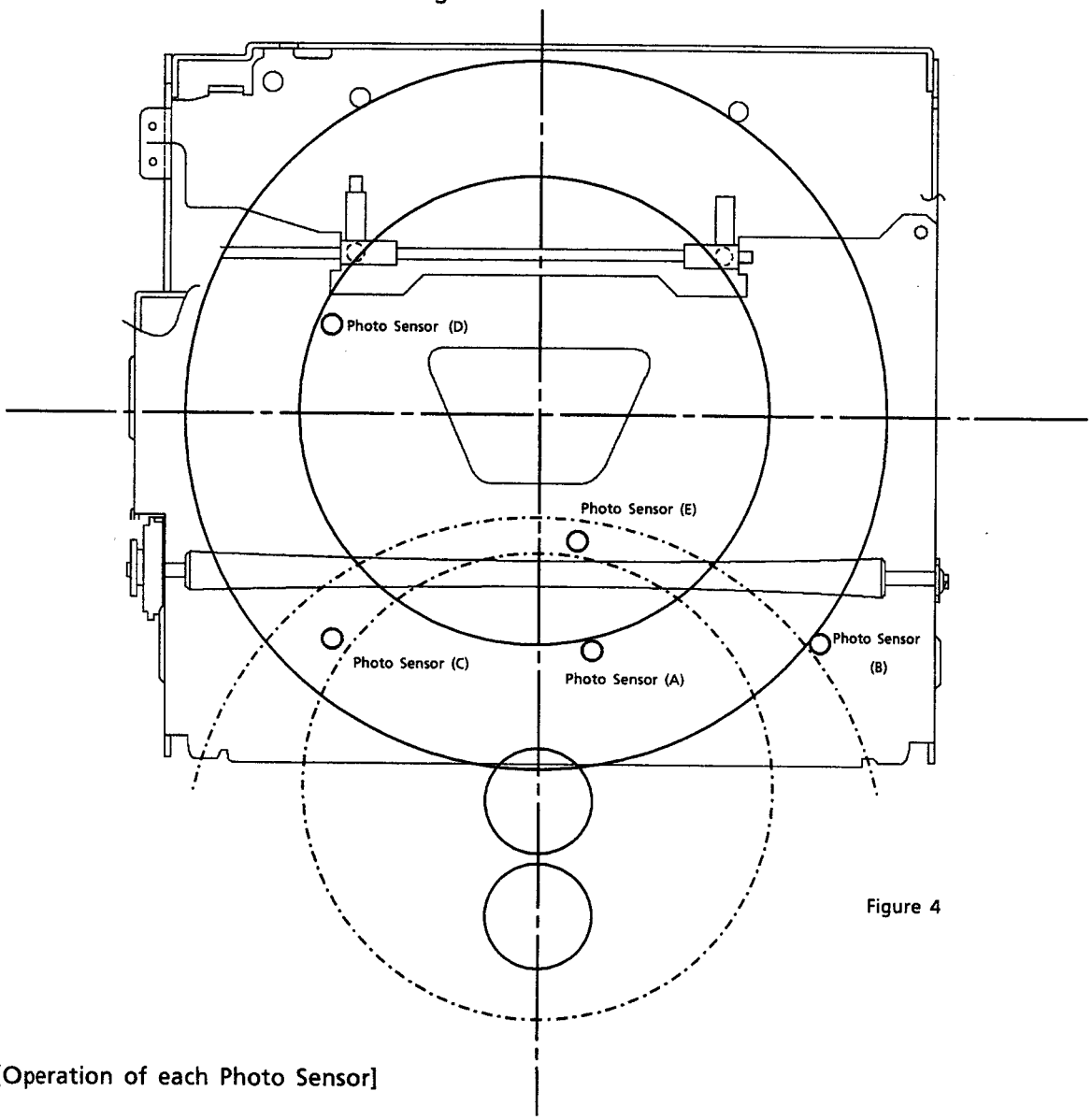


Figure 4

[Operation of each Photo Sensor]

1. Photo Sensor (A) ..... ① Detects insertion of a 8cm Disc or 12cm Disc.
② Detects Loading end position of the 8cm Disc.

2. Photo Sensor (B) ..... ① Identifies either 8cm Disc or 12cm Disc by working with the Photo Sensor (C).
② Detects Loading end position of the 12cm Disc.
③ Detects eject position of the 12cm Disc.
④ Detects a reloading of the 12cm Disc.

3. Photo Sensor (C) ..... ① Detects insertion of the 8cm Disc.
② Detects eject position of the 8cm Disc.
③ Identifies either 8cm Disc or 12cm Disc by working with the Photo Sensor (B).

4. Photo Sensor (D) ..... ① Detects loading end of the 8cm Disc.
② Detects that the 12cm Disc reaches the position at which it touches the stopper pin.

5. Photo Sensor (E) ..... ① Detects reloading of the 8cm Disc.

Function	Sequence	Operation	Illustration
12cm Disc pull-in operation	①	When the disc reaches position ①, the Photo Sensor (A) is interrupted and the disc insertion is detected. The Loading Motor runs in forward direction. As the disc moves further, it is pulled in by the Rubber Roller.	Figure 5
	②	When the disc reaches position ②, both the Photo Sensors (B) and (C) are interrupted at the same time, thereby identifying the disc is of 12cm type. The Lock Lever is opened.	
	③	When the disc reaches position ③, it touches top of the Switch Lever and the pin is raised by driving force of the Rubber Roller.	
	④	When the disc reaches position ④ an outer edge of the disc touches the pin which determines the 12cm Disc position and the disc position is set to the chucking center.	
	⑤	It is detected that the disc position has been determined with the Photo Sensor (B) uninterrupted. Then the Solenoid is powered.	

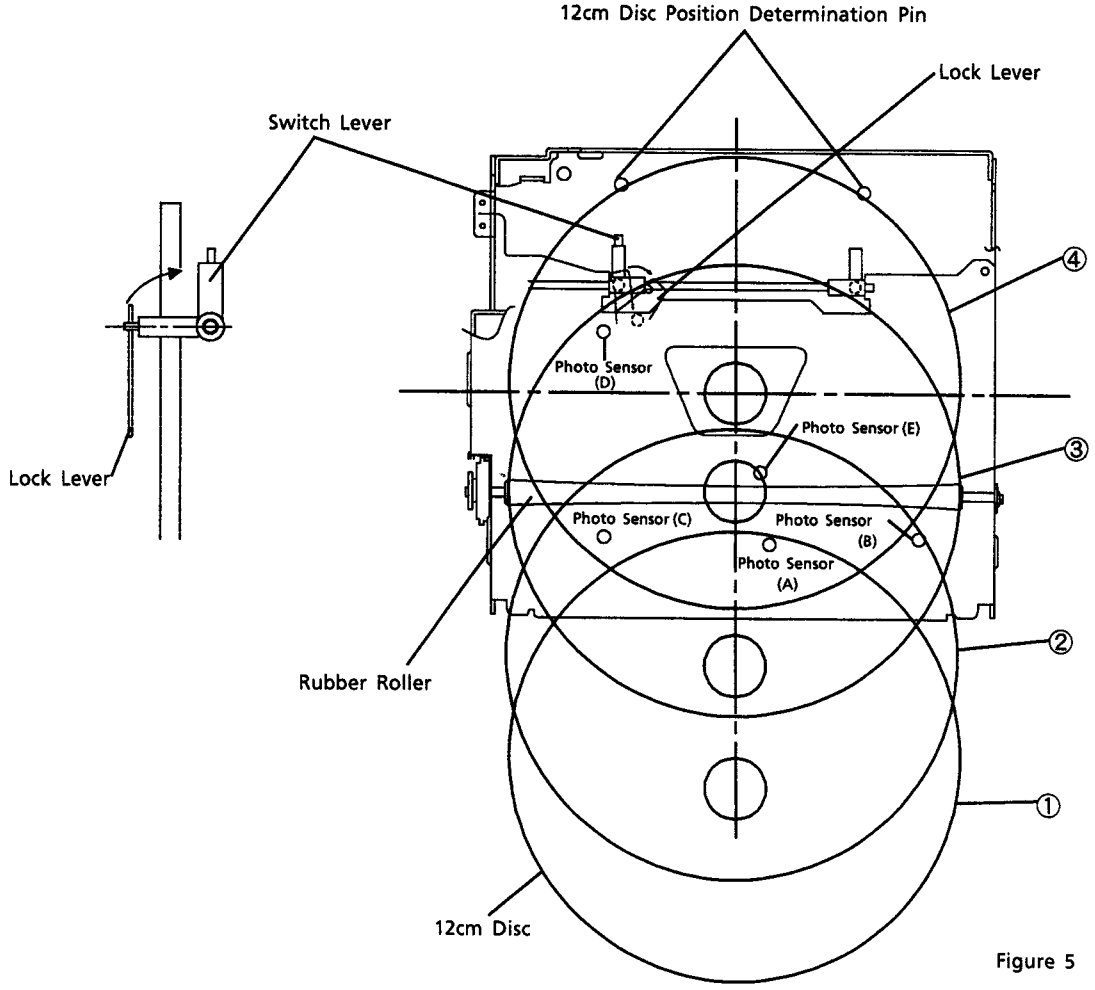


Figure 5

Function	Sequence	Operation	Illustration
8cm Disc pull-in operation	①	When the disc reaches position ①, the Photo Sensor (A) is interrupted and the Loading Motor rotates in forward direction, thereby the disc is pulled in by the Rubber Roller.	Figure 6
	②	Since distance between the Photo Sensors (B) and (C) is larger than the diameter of an 8cm Disc, both of the Photo Sensors (B) and (C) can not be interrupted at the same time when the 8cm Disc is inserted at either left or right side. Accordingly, the Lock Lever does not open until the disc reaches position ②, thus the position is determined directly.	
	③	With the Photo Sensor (D) interrupted and the Photo Sensor (A) uninterrupted, determination of the disc position is detected and the Solenoid is powered.	
	④	After completion of the chucking operation, the Lock Lever is opened and the Switch Lever is moved upward by 90 degrees by a force of Inversion Spring.	

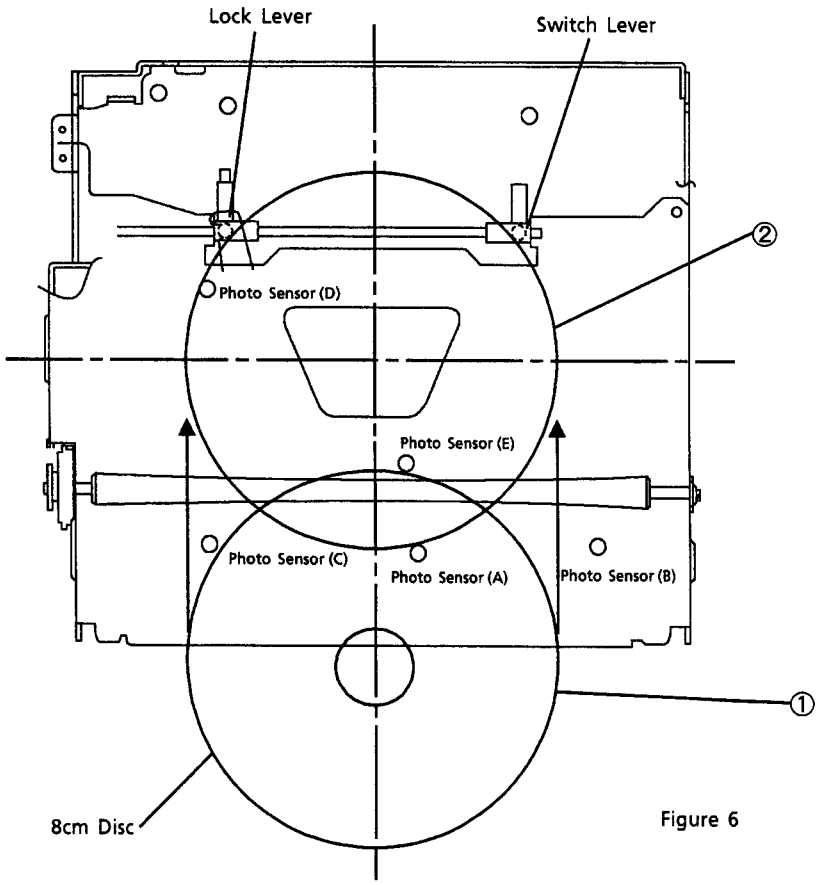


Figure 6

Function	Sequence	Operation	Illustration
Roller drive system operation	①	Loading Motor rotates.	Figure 7
	②	Worm gear of the Motor Shaft rotates and Worm Wheel transfers driving force to the Idler Gear.	
	③	Idler Gear (big) transfers the driving force to the Loading Clutch.	
	④	The Loading Clutch limits the driving torque within 45gcm~85gcm and transfers it to the Rubber Roller.	
	⑤	The Rubber Roller rotates, thereby pulling in the disc.	

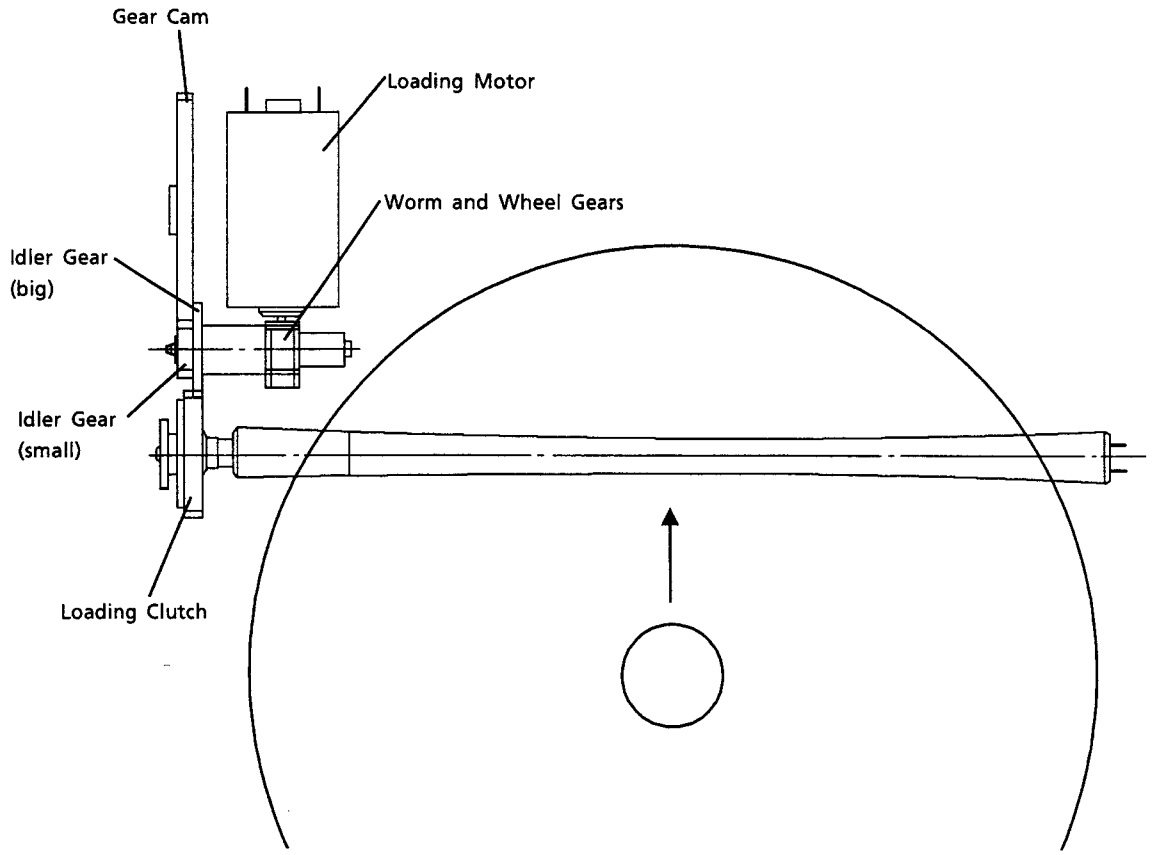
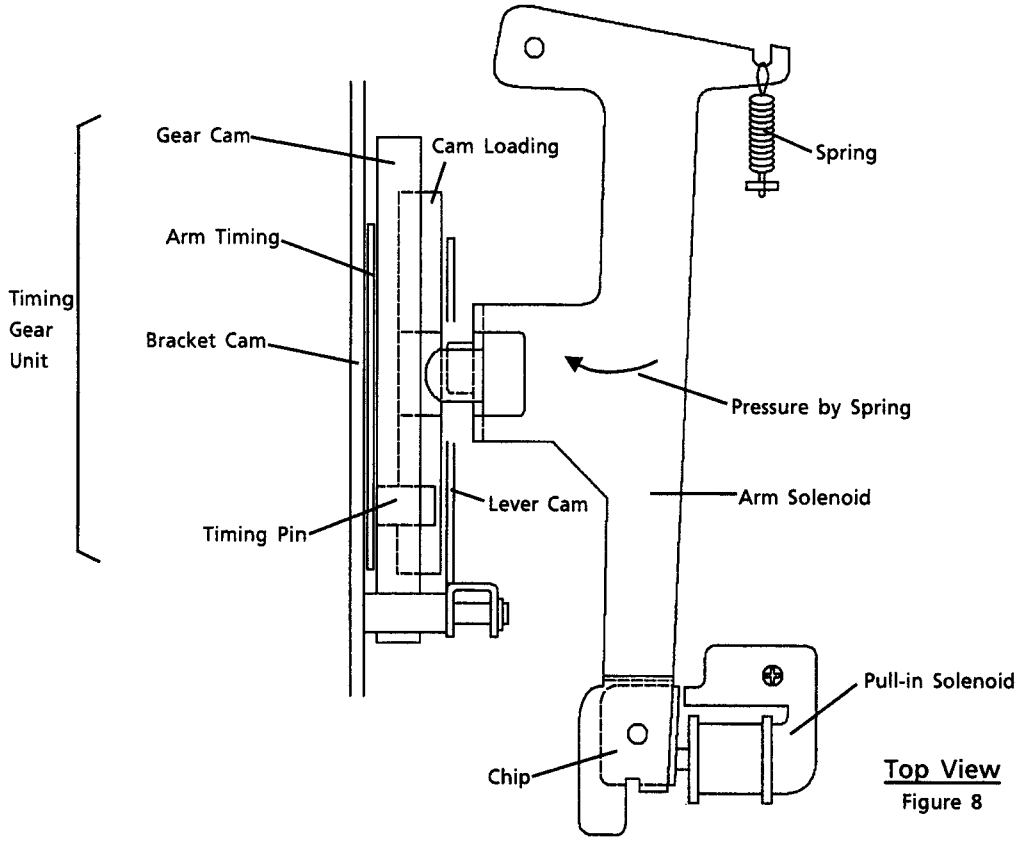
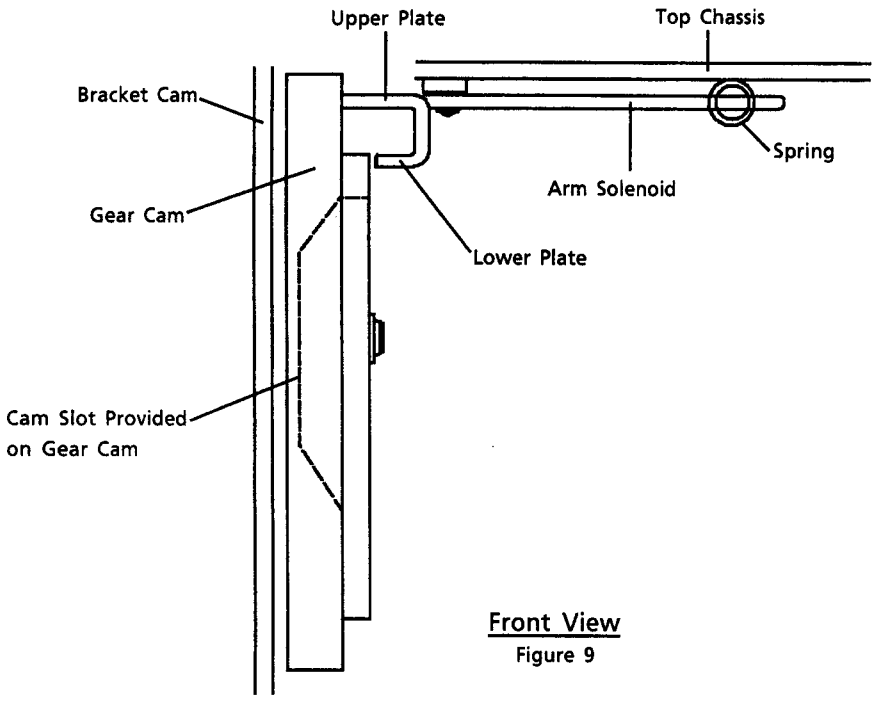


Figure 7

<Structures around Loading Gears>



Top View
Figure 8



Front View
Figure 9

Function	Sequence	Operation	Illustration
Operations of Timing Gear unit in disc pull-in (Solenoid not powered) operation	①	The Gear Cam rotates in clockwise direction and the Timing Pin comes near the coupling Slot of the Gear Cam.	Figure 10
	②	The Timing Cam is going to enter the Coupling Slot but it is interrupted by a Lower Plate of the Arm Solenoid entered left side along the Cam Slot, so it passes away upper side.	Figure 11
	③	When the Timing Pin passes away the Coupling Slot, the Arm Solenoid is pressed and returned to right side as the Cam Slot does not exist. The Chip and Solenoid touch at this position.	Figure 12

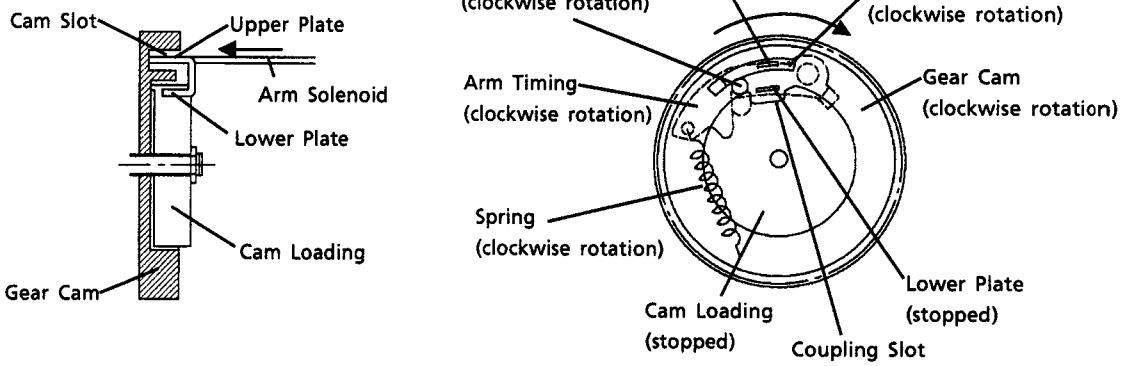


Figure 10

Figure 11

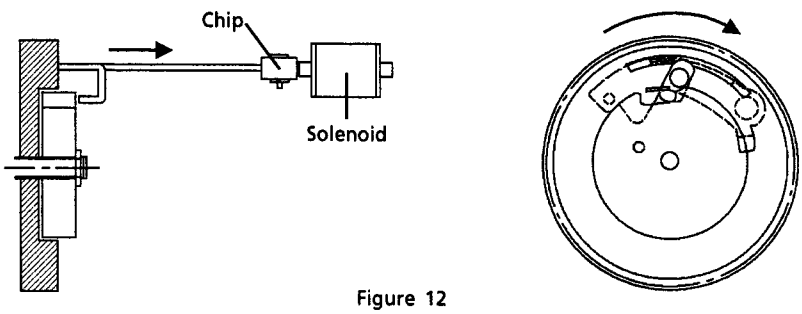
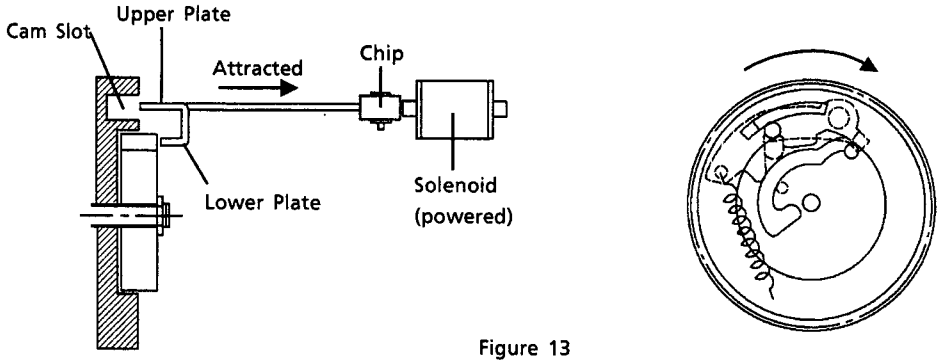


Figure 12

Function	Sequence	Operation	Illustration
Operations of Timing Gear unit in disc chucking (Solenoid powered)	①	The Gear Cam rotates clockwise and the Timing Pin comes near the Coupling Slot. But the Arm Solenoid does not move to left side as the Solenoid is attracting if the Cam Slot moves to the Upper Plate position.	Figure 13
	②	As the arm Solenoid does not move to left side, the Timing Pin is dropped into the Coupling Slot by a force of the Spring without it is interrupted by the Lower Plate.	Figure 14
	③	When the Timing Pin enters the Coupling Slot completely, both the Gear Cam and the Cam Loading start rotation clockwise, thus the chucking operation starts.	Figure 15



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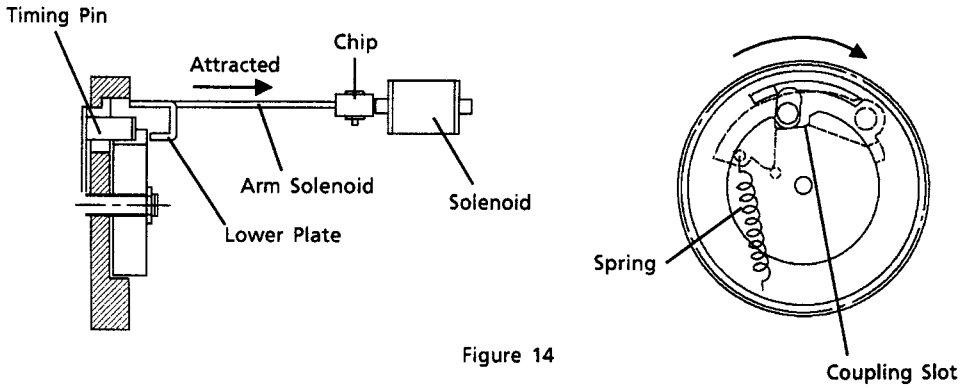

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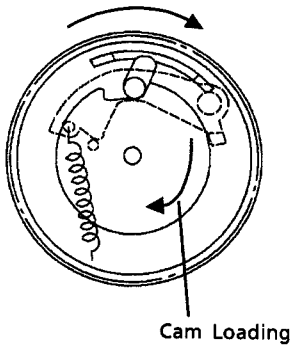
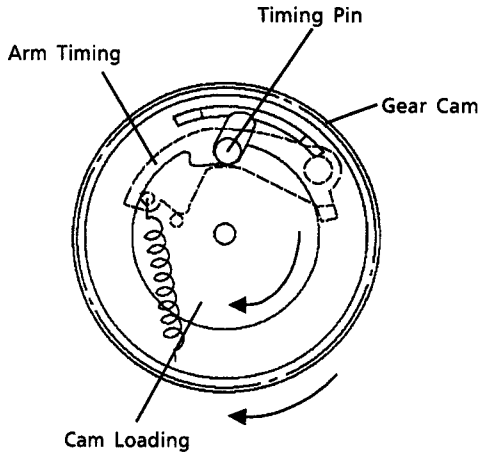


Figure 15

Function	Sequence	Operation	Illustration
Coupling release operation of the Gear Cam and Cam Loading in chucking operations	①	The Gear Cam and the Cam Loading are coupled with the Timing Pin and they begin to rotate clockwise as a unit.	Figure 16
	②	When they rotate by 320 degrees, the chucking operating completes.	Figure 17
	③	The Remove Pin and the Arm Timing Pin touch at this position and the Arm Timing is raised.	Figure 18
	④	When the Timing Pin is disengaged from the Coupling Slot, only the Gear Cam rotates idly.	Figure 19



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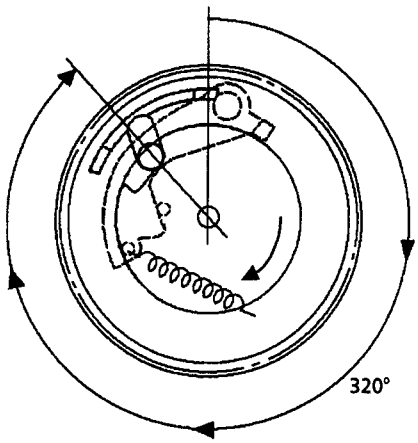

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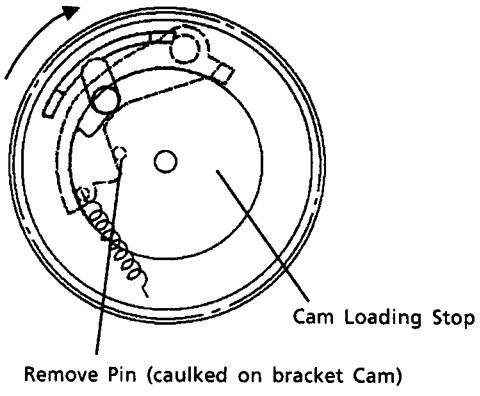

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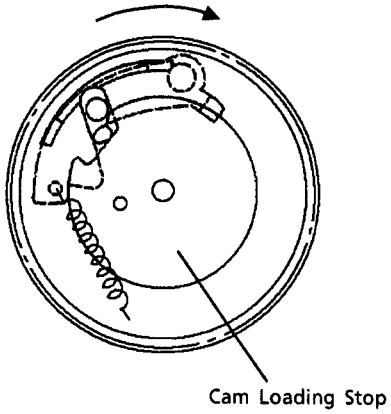
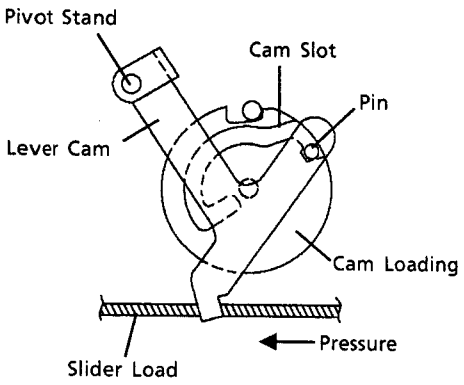


Figure 19

Function	Sequence	Operation	Illustration
Slide feed operation by rotation of Cam Loading in chucking operation	①	Chucking operation start position / the Cam Loading is stopped when the Pin caulked on the Lever Cam drops onto a recessed section of the Cam Slot.	Figure 20
	②	The Pin rises on a protruded section as the Cam Loading rotates clockwise.	Figure 21
	③	The Pin passes over the protruded section and enters the Cam Slot.	Figure 22
	④	The Lever Link is rotated by the slanted section of the Cam Slot and the Slide Load is fed by 5mm.	Figure 23
	⑤	When the Pin enters the Concentric Circle Section of the Cam Slot, the Lever Link stops rotation and only the Cam Loading rotates and enters the U Slot.	Figure 24
	⑥	When the Pin enters the U Slot, the Lever Link rotates again and the Slider Load is further fed by 12mm (in total 17mm). This position is the end position for the Slider Load and the Cam Loading stops at the position rotated by 320 degrees. (The Timing Pin is disengaged from the Coupling Slot.)	Figure 25



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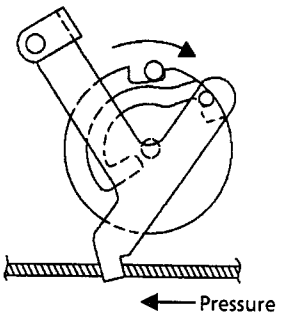

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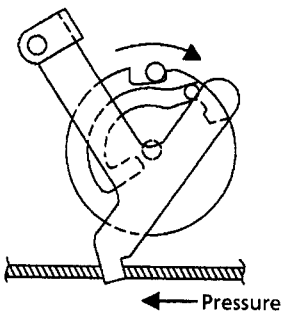

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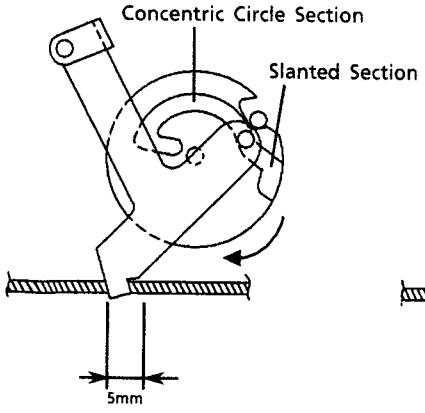

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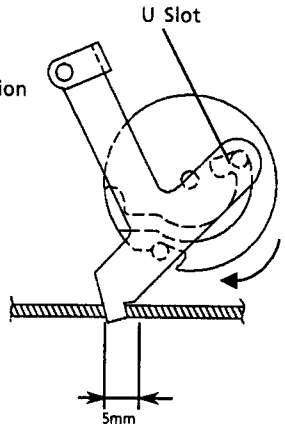

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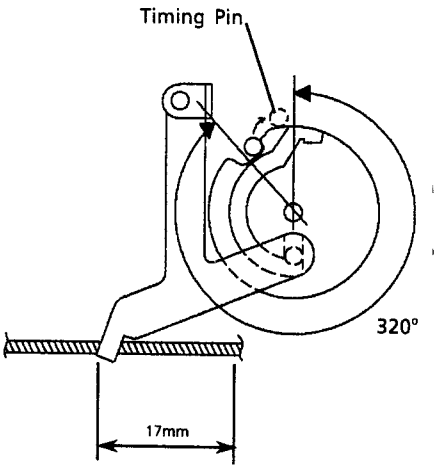


Figure 25

Function	Sequence	Operation	Illustration
Chucking operation (drive block is not shown)	①	The Slider Load moves downward by 17mm with rotation of the Lever Link. Following operations are carried out in connection with the motion of the Slider Load.	Figure 26 ①
	②	The Arm Lock (R) rotates clockwise and disengages from the Drive Unit.	Figure 26 ②
	③	The Arm Link (L) rotates counterclockwise and disengages from the Drive Unit.	Figure 26 ③
	④	The Lever Link is slid leftward.	Figure 26 ④
	⑤	The Stud Lock (F) disengages from the Drive Unit.	Figure 26 ⑤
	⑥	The Arm Lock (F) disengages from the Drive Unit.	Figure 26 ⑥
	⑦	The Arm Link (R) rotates clockwise.	Figure 26 ⑦
	⑧	The Slider Lock moves downward and the Lock section at the end disengages from the Drive Unit.	Figure 26 ⑧

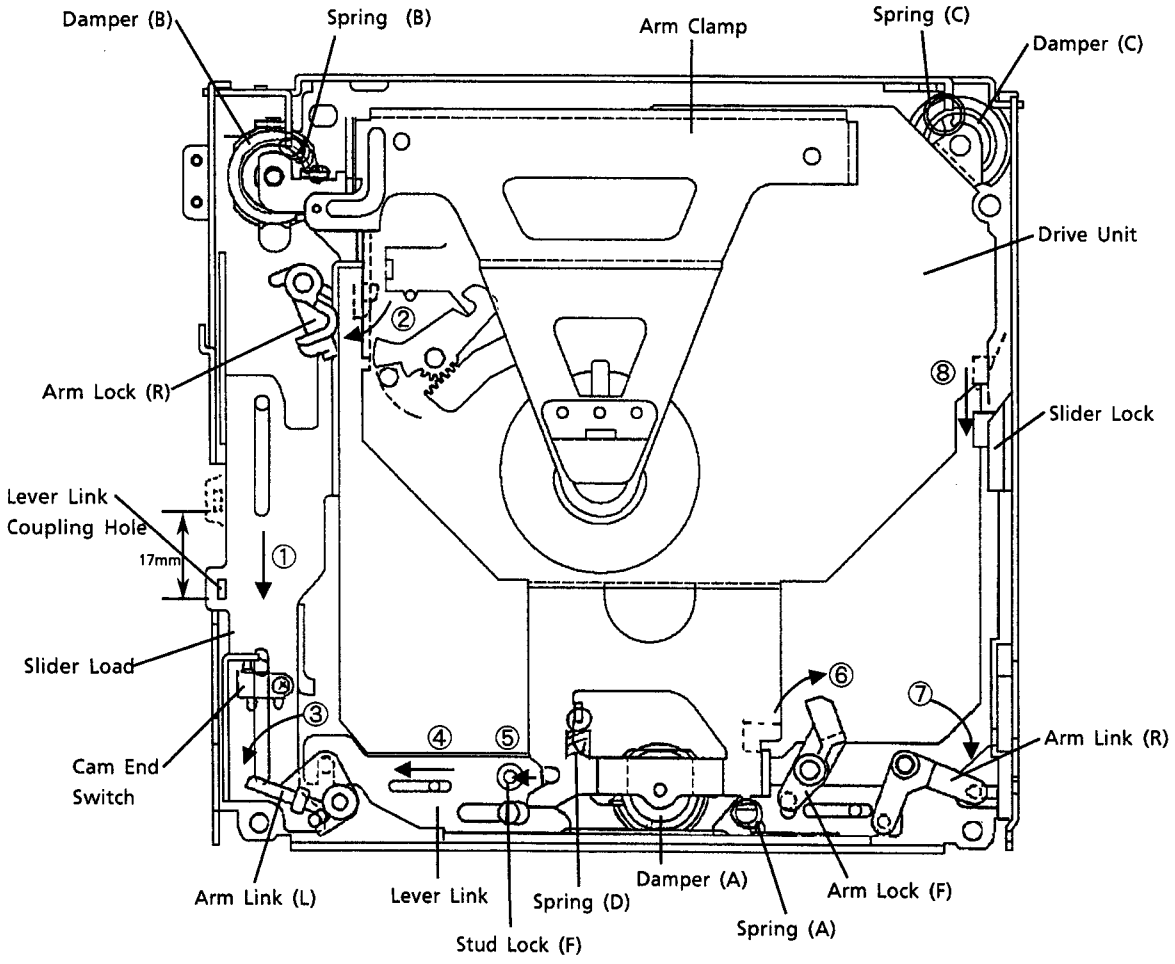
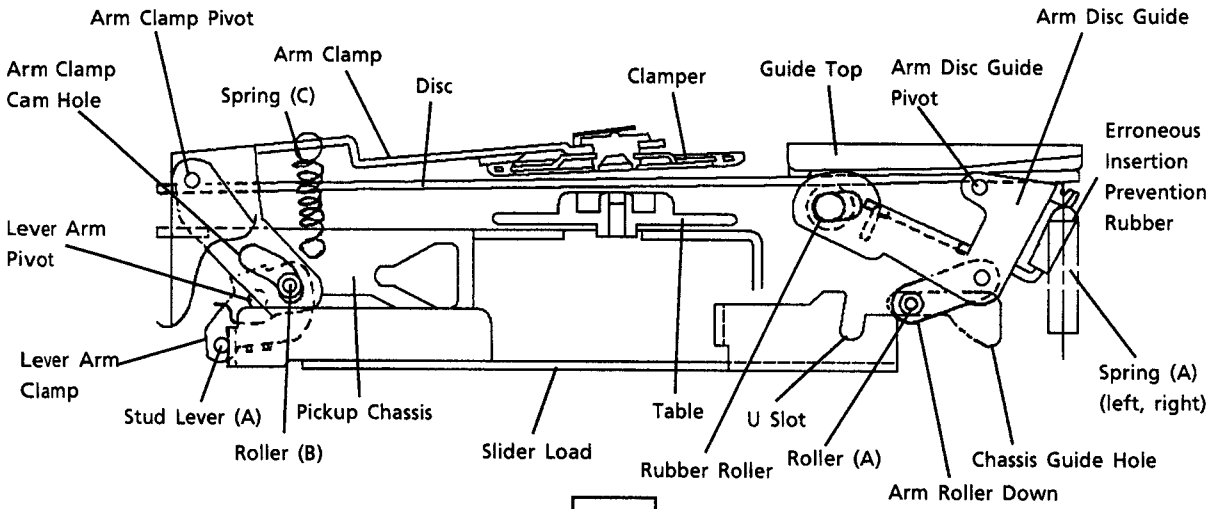


Figure 26

Function	Sequence	Operation	Illustration
Chucking operation (Disc Clamp)	①	When the chucking operation starts, the Slider Load moves rightward by 17mm. Following operations are carried out in relation to the motion of the Slider Load.	Figure 27 ①
	②	As the protruded Section of Slider Load pressing the Stud Lever (A) leftward moves rightward, entire of the Lever Arm Clamp is rotated counterclockwise by force of the Spring (B).	Figure 27 ②
	③	The Roller (B) provided on the Lever Arm Clamp rotates counterclockwise in the Arm Clamp Cam Hole. This motion guides the Arm Clamp and the Arm Clamp is rotated clockwise by force of the Spring (C).	Figure 27 ③
	④	Top of the Arm Clamp lowers and the Clamper drops downward.	Figure 27 ④
	⑤	The U Slot of the Slider Load presses the Roller (A) and the Roller (A) moves rightward along to the chassis guide hole.	Figure 27 ⑤
	⑥	This motion of the Roller (A) is transferred to the Arm Disc Guide through the Arm Roller Down and the Arm Disc Guide rotates counterclockwise and the Rubber Roller moves downward.	Figure 27 ⑥
	⑦	Erroneous Insertion Prevention Rubber provided on the Arm Disc Guide covers the disc Insertion Slot.	Figure 27 ⑦

Chucking start



Chucking end

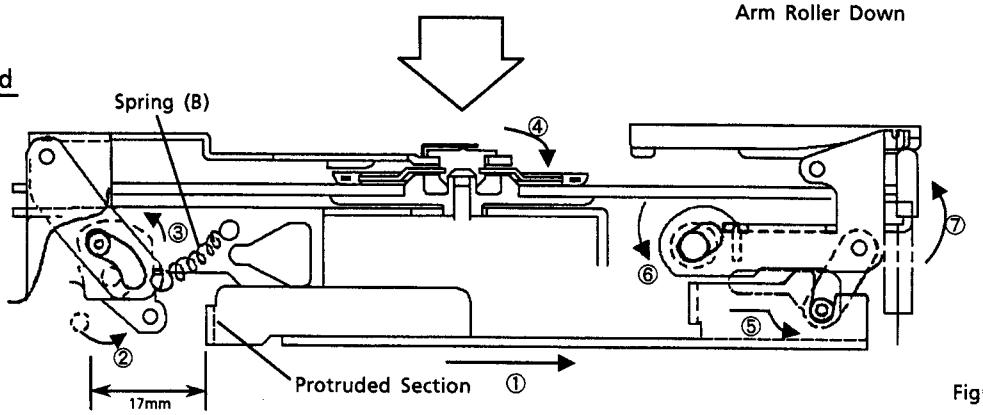


Figure 27

Function	Sequence	Operation	Illustration
Pickup feed operation	①	The Sled Motor rotates, the speed is reduced by the Motor Gear, Middle Gear and Gear Screw, and the Shaft Screw rotates.	Figure 28
	②	The Spring nut engaging with the Shaft Screw is fed to inner or outer side by the rotation of the Shaft Screw, and the Pickup moves along to two Shafts.	

Bottom View

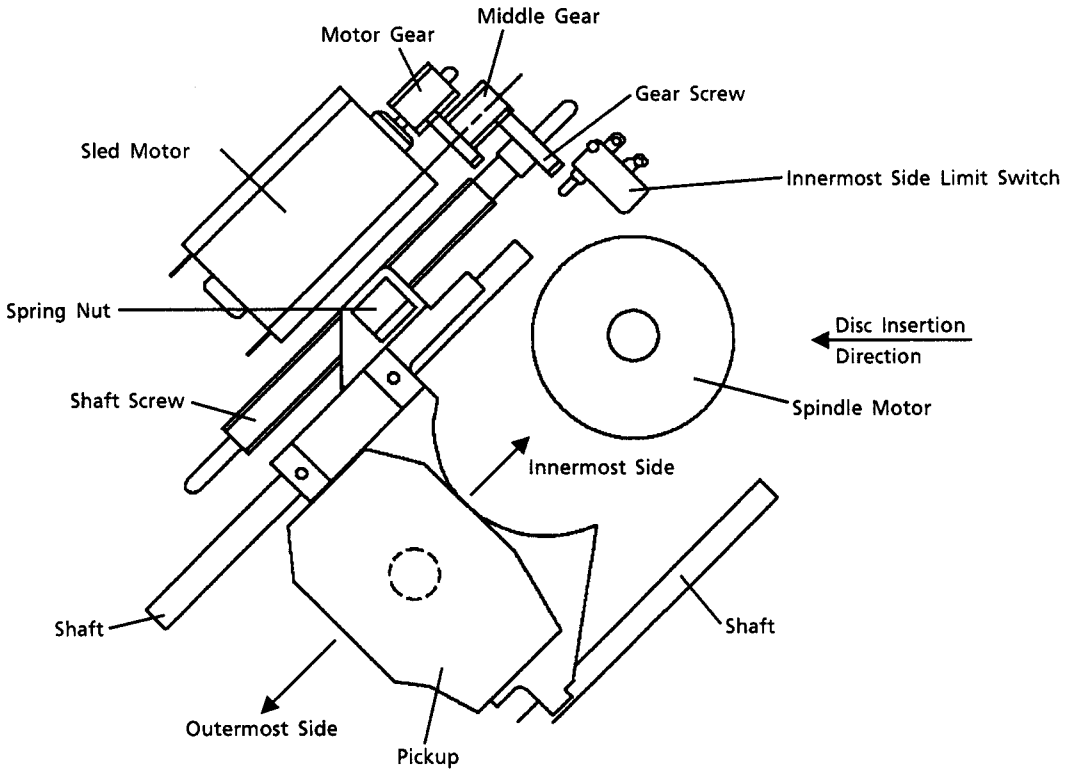


Figure 28

Function	Sequence	Operation	Illustration
Disc eject operation	①	12cm / 8cm Disc position during playback. When the eject button is pushed, and the Photo Sensor (C) is interrupted, it is determined that a 12cm Disc is loaded. On the other and if it is not interrupted it is determined that an 8cm Disc is loaded, and the eject operation starts.	Figure 29 ①
	②	Releasing operations of the Rubber Roller, Clamper and Drive Lock are carried out in reverse order as those in the chucking operations. In this case, Switch Pin returning operation is added. With this operation, the Switch Pin is returned to vertical direction and its top drops onto the position determination slot of the Drive Unit.	Figure 29 ②
	③	12cm Disc is stopped when the eject position is detected with the Photo Sensor (B) not interrupted.	Figure 29 ③
	④	8cm Disc is stopped when the eject position is detected with the Photo Sensor (C) not interrupted.	Figure 29 ④
	⑤	The Lever Pin Lock performs Switch Pin lock operation and returns to the initial status.	Figure 29 ⑤

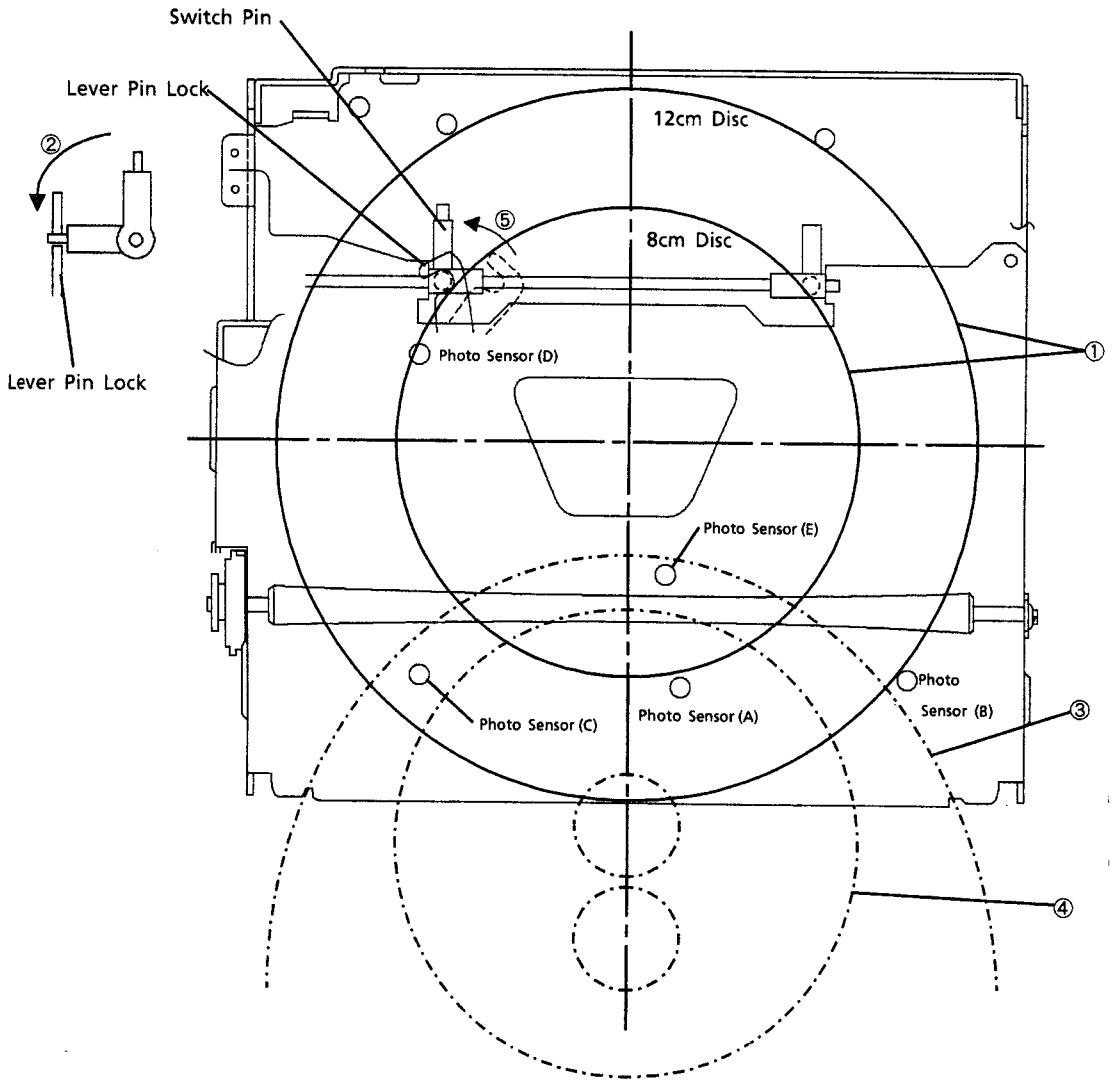


Figure 29

Function	Sequence	Operation	Illustration
Operation of Gear Cam and Cam Loading in eject operations	①	When the eject button is pressed, the Loading Motor rotates in reverse direction from the direction as in the Loading operation, and the Gear Cam rotates counterclockwise through the a Gear.	Figure 30
	②	The Timing Pin drops in the Coupling Slot of the Cam Loading and the Cam Loading and the Gear Cam coupled together start to rotate.	Figure 31
	③	After rotation of 320 degrees, top of the Arm Timing touches the Remove Pin.	Figure 32
	④	And the top of the Arm Timing is raised by the Remove Pin, and the Arm Timing is rotated clockwise. Then, the Timing Pin begins to come out from the Coupling Slot.	Figure 33
	⑤	The Timing Pin comes out from the Coupling Slot, the Cam Loading stops, and only the Gear Cam rotates idly.	Figure 34

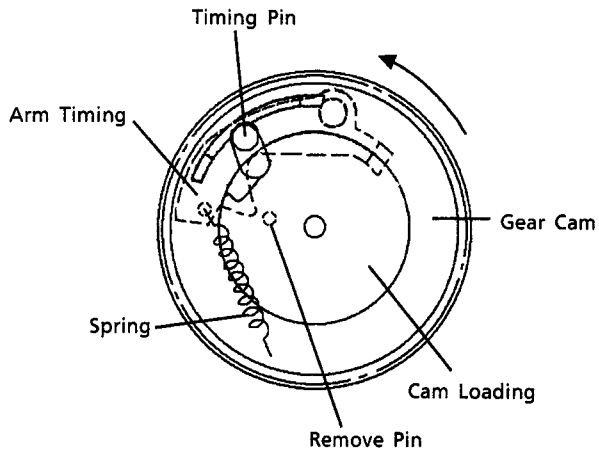


Figure 30

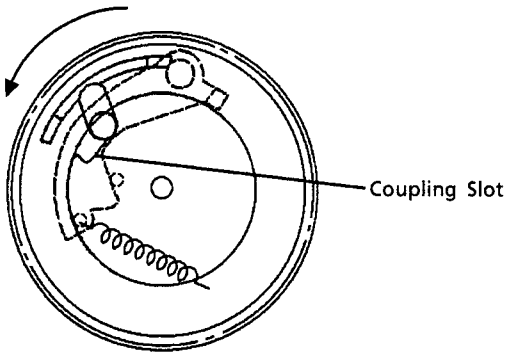


Figure 31

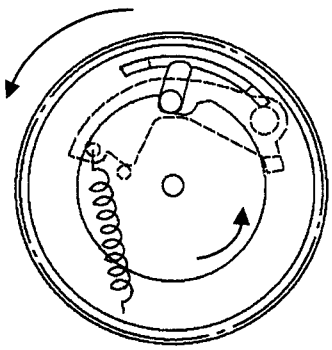


Figure 32

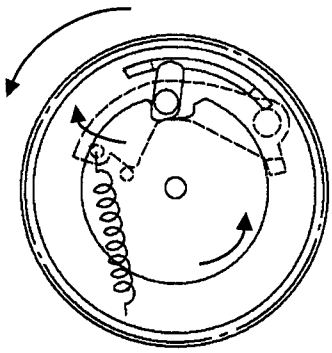


Figure 33

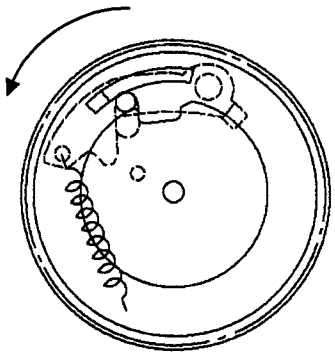


Figure 34

Function	Sequence	Operation	Illustration
Eject operation (Switch Lever returning)	①	The eject start position is located at right of the Rack Gear (A) and the Rack and the Gear (A) are engaged when the Slider Load moves leftward. ··· ⓒ	Figure 36
	②	The Gear (B) and the Gear (C) start to engage when the Rack is fed by 12mm. ··· ⓑ	
	③	The eject operation completes when the Rack moves by 17mm. The Gear (A) returns to the original position by force of the Spring. ··· ⓒ The Gear (C) separates from the Gear (B). ··· ⓑ The Switch Lever rotates and returns to the vertical position and fixed at that position by force of the Inversion Spring. ··· ⓐ	

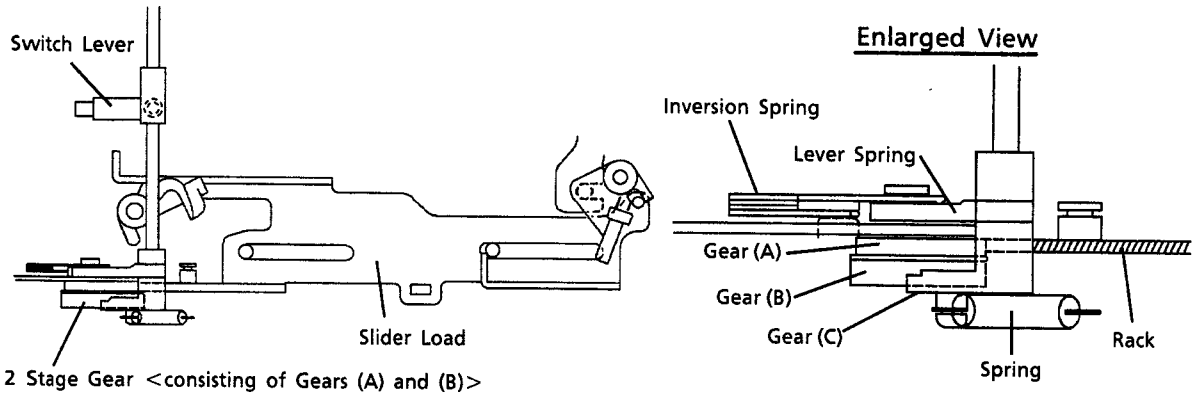
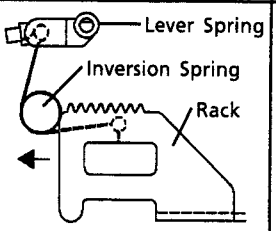
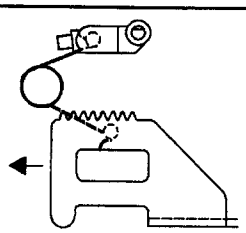
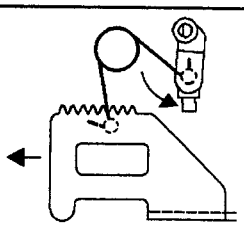
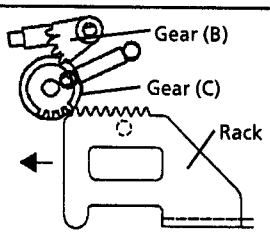
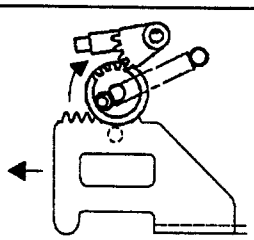
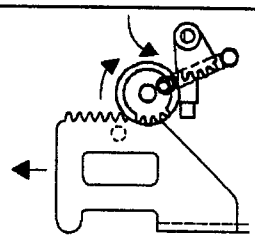
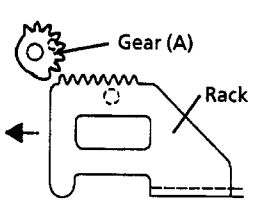
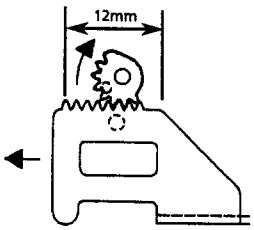
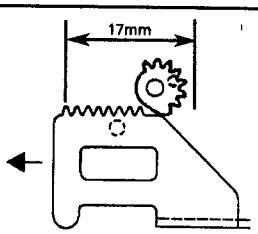


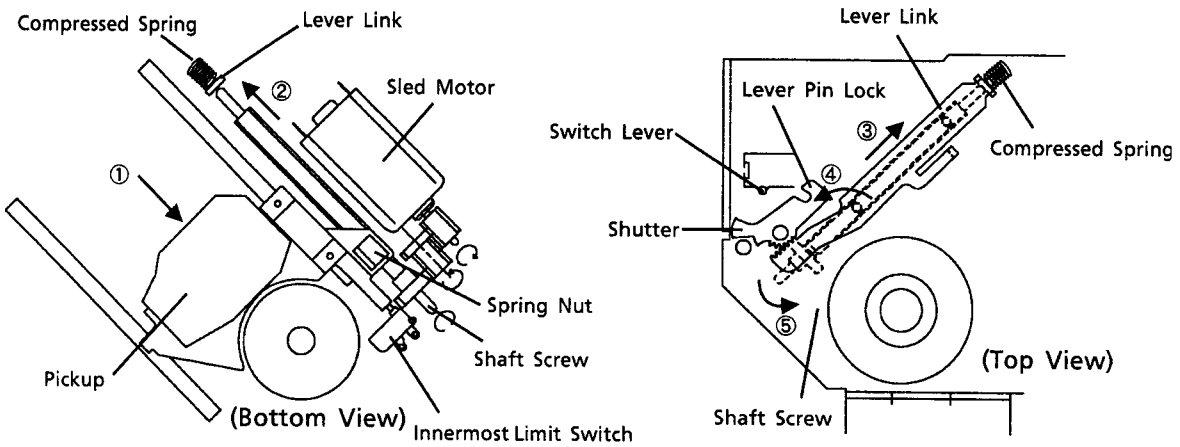
Figure 35

Figure 36

	①	②	③
ⓐ Operations of Inversion Spring and Lever Spring			
ⓑ Operations of Gears (B) and (C)			
ⓒ Operations of Gear (A) and Rack			

Function	Sequence	Operation	Illustration
Operation of Switch Pin Lock	①	When the Pickup moves inner side and touches the stopper, it stops, but the Motor continues to rotate. In this case, the Innermost Limit Switch is pushed and it is determined that the Pickup reached the Innermost end.	Figure 37 ①
	②	As the Spring Nut does not move to inner side, a force (as a reaction) in outer side direction is applied to the Shaft Screw. The Shaft Screw has a clearance in the thrust direction and deviated to inner side direction with a Compressed Spring. As a result, it presses the Spring when the force in outer side direction is applied, and the Shaft moves outer side.	Figure 37 ②
	③	The force in the outer direction is transferred to the Lever Link and the Lever Link moves the outer side in the same way.	Figure 37 ③
	④	The Lever Pin Lock rotates cLockwise through the Rack.	Figure 37 ④
	⑤	The Shutter provided on the Lever Pin Lock moves in direction which interrupts the Photo Sensor (D).	Figure 37 ⑤
	⑥	The Photo Sensor (D) is uninterrupted when the Shaft moves by 3mm. This is detected and used to stop the Motor.	Figure 37 ⑥
	⑦	At this position, the Lever Pin Lock engages the Switch Pin and Locks.	Figure 37 ⑦

Ⓐ Lock operation start



Ⓑ Lock operation complete

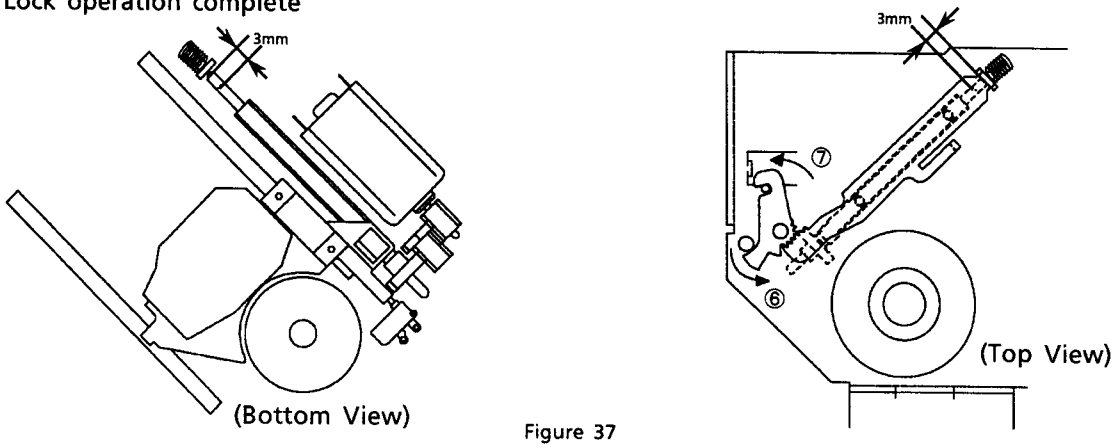
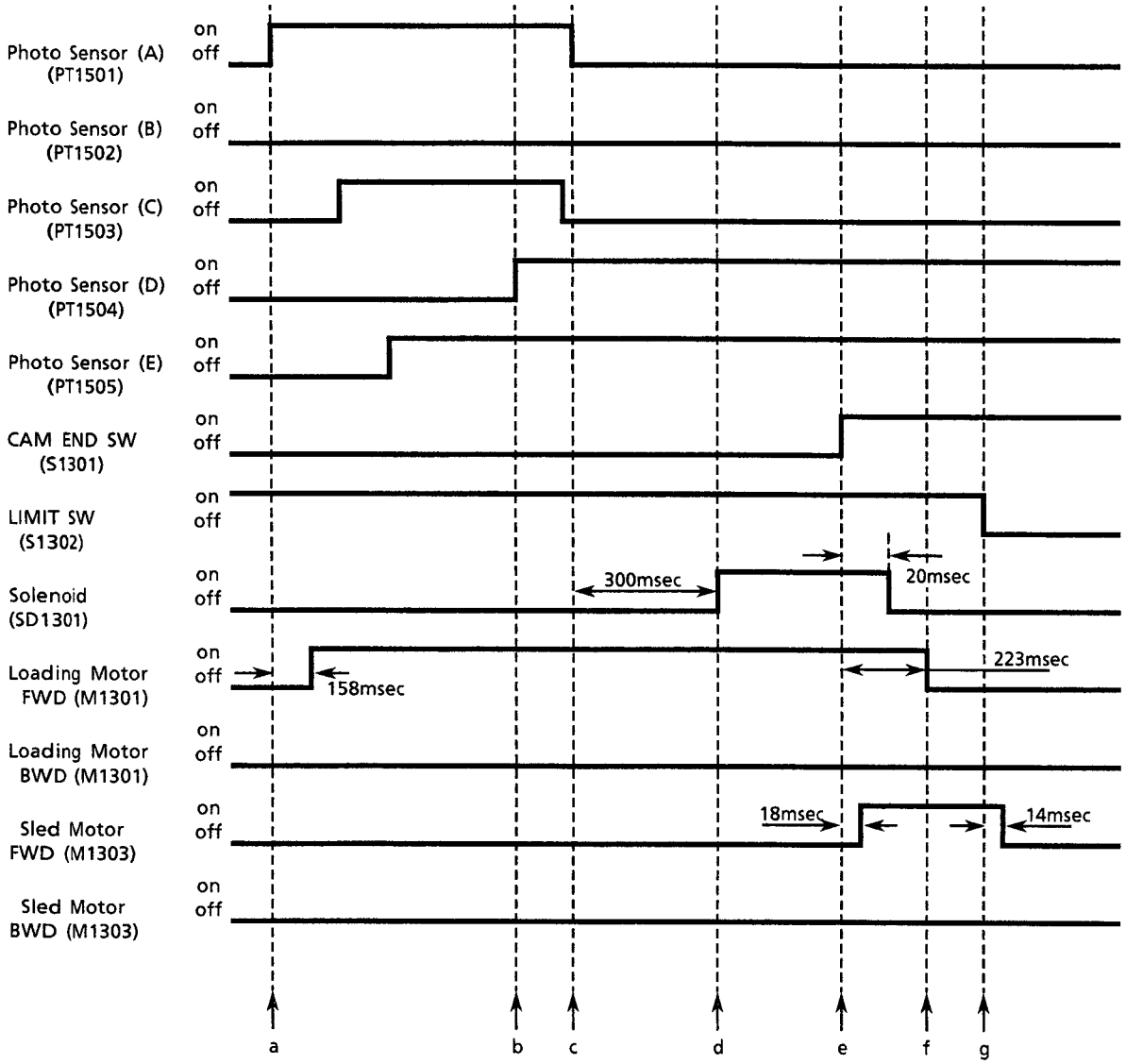


Figure 37

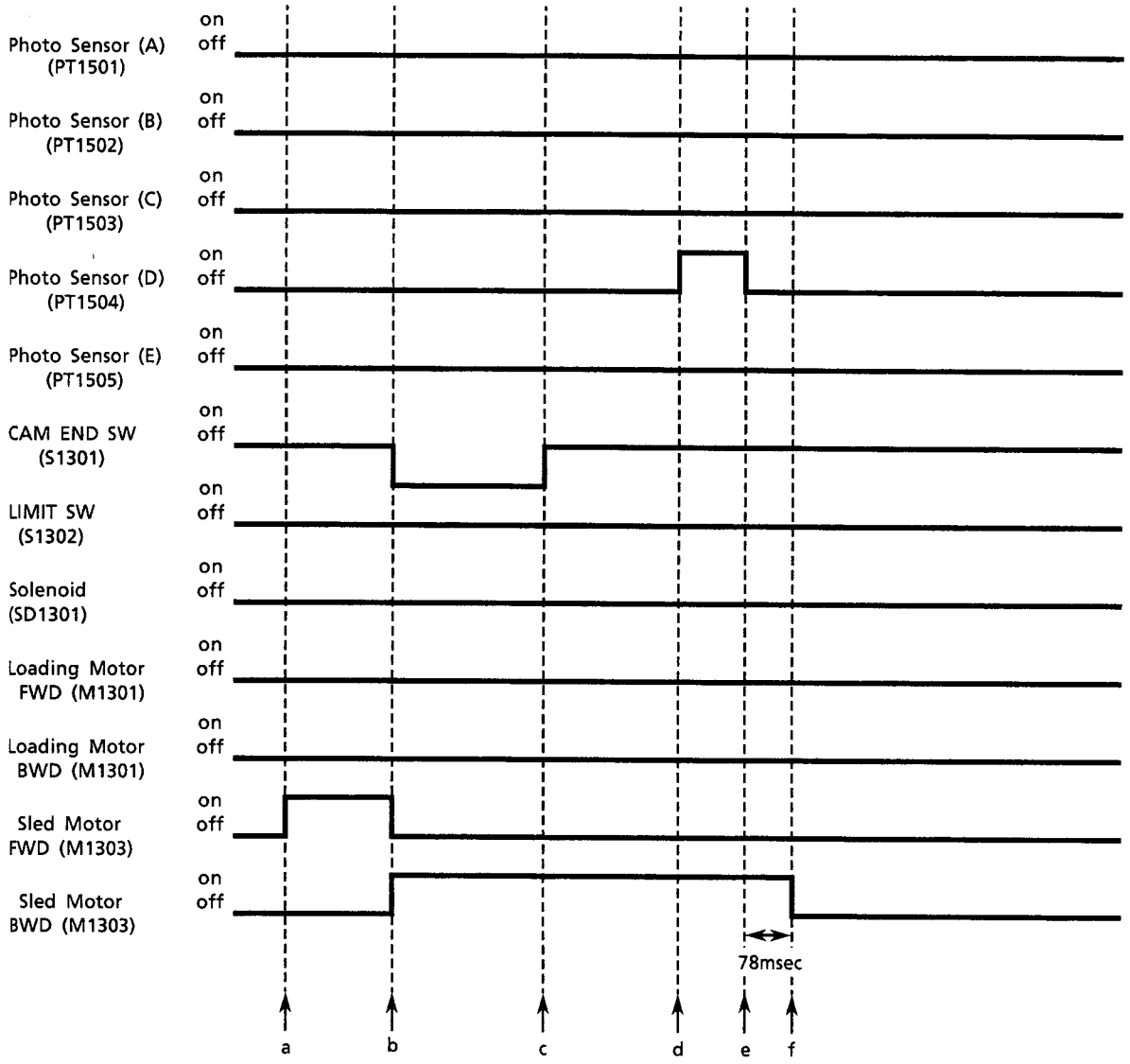
Timing Chart

8cm Disc Loading Timing Chart



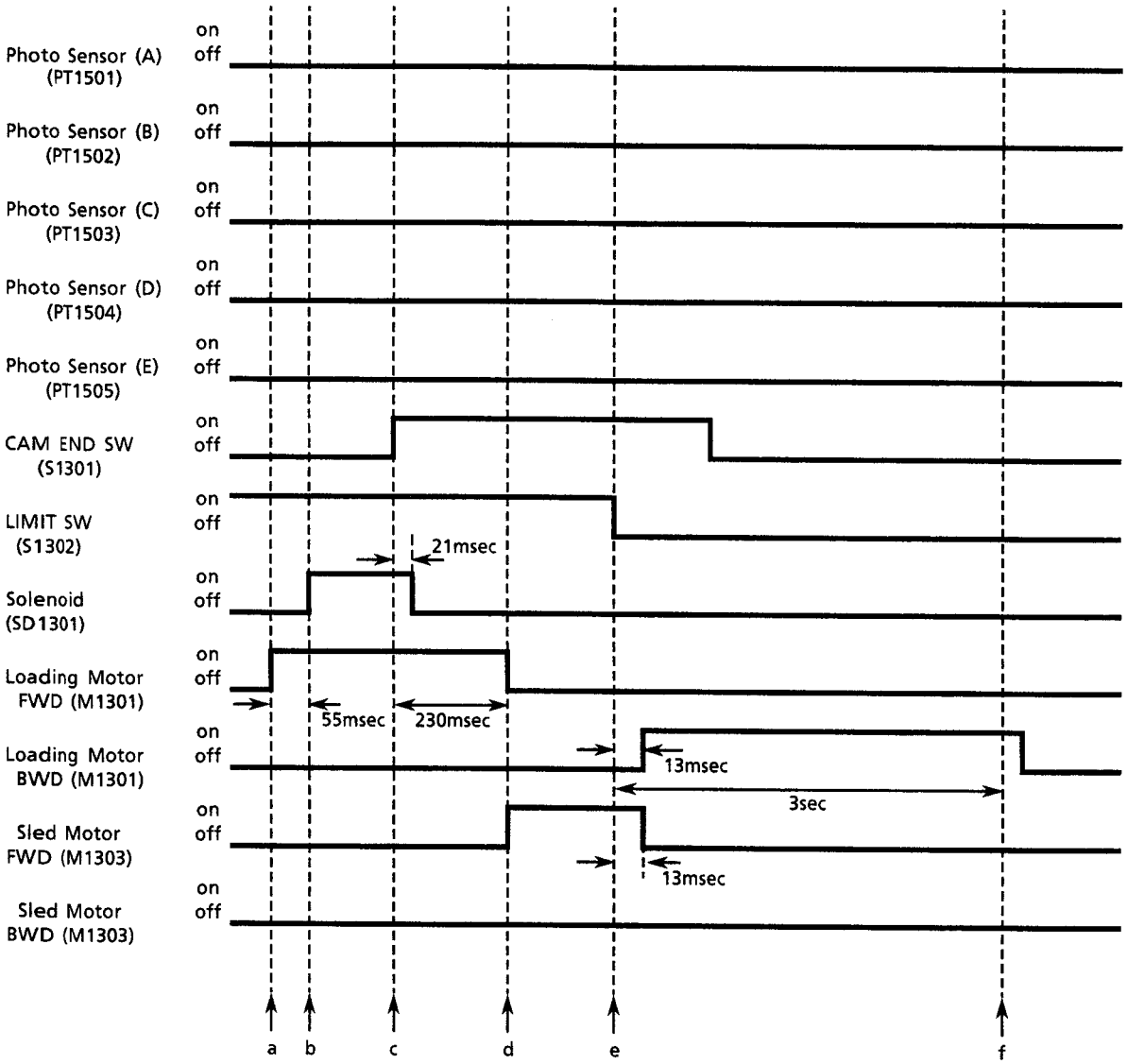
a. With the Photo Sensor (A) turned on, the Loading Motor FWD is turned on.
b. With the Photo Sensors (A) and (C) not turned on at the same time but the Photo Sensor (D) turned on, the disc type is determined as an 8cm Disc.
c. With both of the Photo Sensors (A) and (C) turned off, a 300msed timer is set.
d. With both of the Photo Sensors (A) and (C) turned off after 300msec elapsed, the Solenoid is turned on.
e. With the CAM END SW turned on, the Solenoid is turned off and a 200msec timer is set. At the same time the Sled is moved to outermost side.
f. After 200msec elapsed, the Loading Motor FWD is turned off.
g. With the LIMIT SW turned off, the Sled Motor FWD is turned off.

Lock on Timing Chart



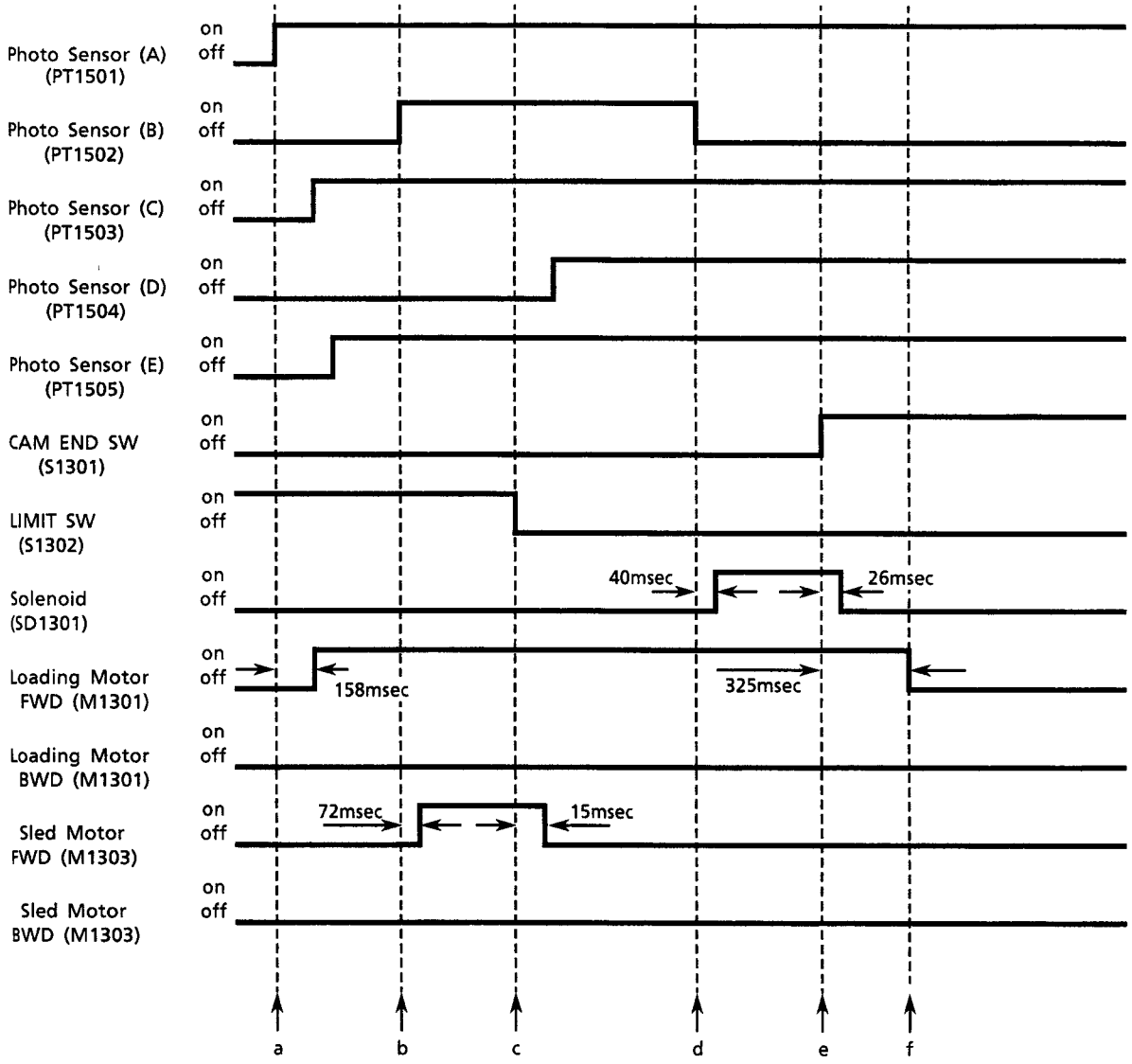
a. As the LIMIT SW is on, the Sled is once moved to the outermost side to turn off the LIMIT SW.
b. With the LIMIT SW turned off, the Sled is moved to the innermost side.
c. The LIMIT SW is turned on.
d. Photo Sensor (D) is turned on.
e. With the Photo Sensor (D) turned off, a 65msec timer is set.
f. After 65msec elapsed, the Sled Motor is turned off.

Single Guard on Timing Chart



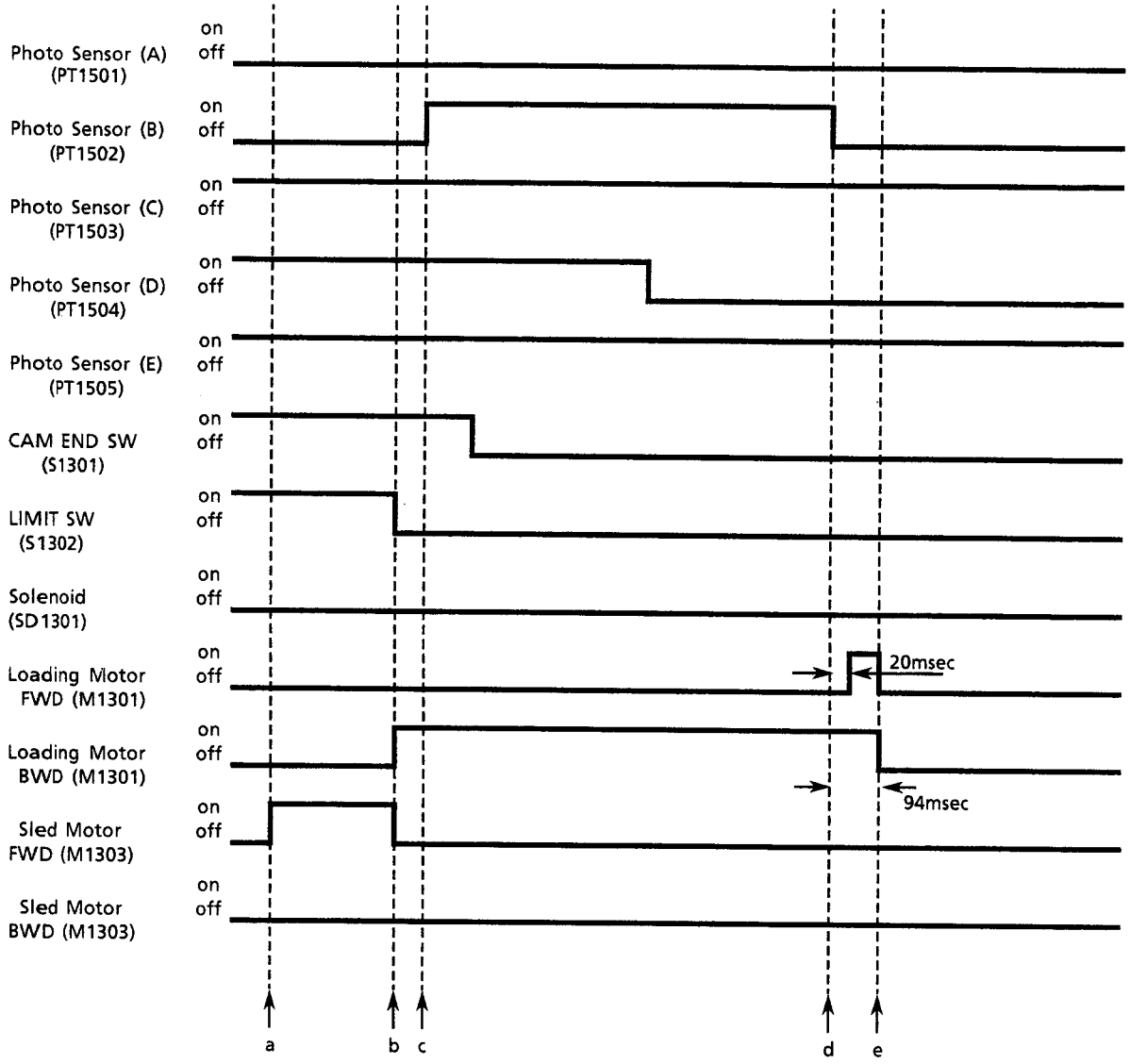
a. The Loading Motor FWD is turned on and a 50msec timer is set.
b. After 50msec elapsed, the Solenoid is turned on.
c. With the CAM END SW turned on, the Solenoid is turned off. The 200msec timer is set.
d. After 200msec elapsed, the Loading Motor FWD is turned off. As the LIMIT SW is turned on, the Sled is moved to the outermost side and the lock is released.
e. With the LIMIT SW turned off, the Sled is turned off. The Loading Motor BWD is turned on and a 3sec timer is set.
f. After 3sec elapsed, the Loading Motor BWD is turned off.

12cm Disc Loading Timing Chart



a. With the Photo Sensor (A) turned on, the Loading Motor FWD is turned on.
b. As the Photo Sensors (B) and (C) are turned on, the disc type is determined as a 12cm disc. The Sled is moved to the outermost side to release the lock.
c. With the LIMIT SW turned off, the Sled is turned off.
d. As the Photo Sensor (B) is turned off and the Photo Sensor (D) is on, the Solenoid is turned on.
e. With the CAM END SW turned on, the Solenoid is turned off and the 200msec timer is set.
f. After 200msec elapsed, the Loading Motor FWD is turned off.

12cm Disc Eject Timing Chart

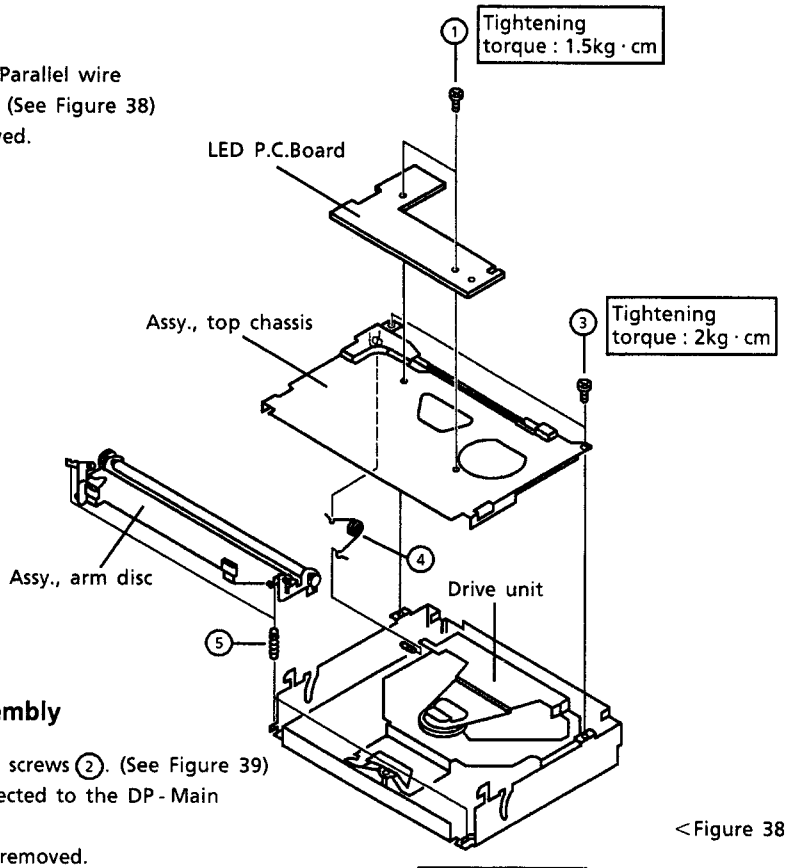


a. As the LIMIT SW is turned on, the Sled is moved to the outermost side to release the lock.
b. With the LIMIT SW turned off, the Sled is Turned off. The Loading Motor BWD is turned on.
c. The Photo Sensor (B) is turned on.
d. With the Photo Sensor (B) turned off, the Loading Motor FWD is set and the 50msec timer is set. (Brake ON).
e. After 50msec elapsed, the Loading Motor FWD and the Loading Motor BWD are turned off.

Component disassembly and assembly notes

1. LED P.C.Board disassembly

(1) Remove two screws ①and the Parallel wire connected to the LED P.C.Board. (See Figure 38)
The LED P.C.Board can be removed.



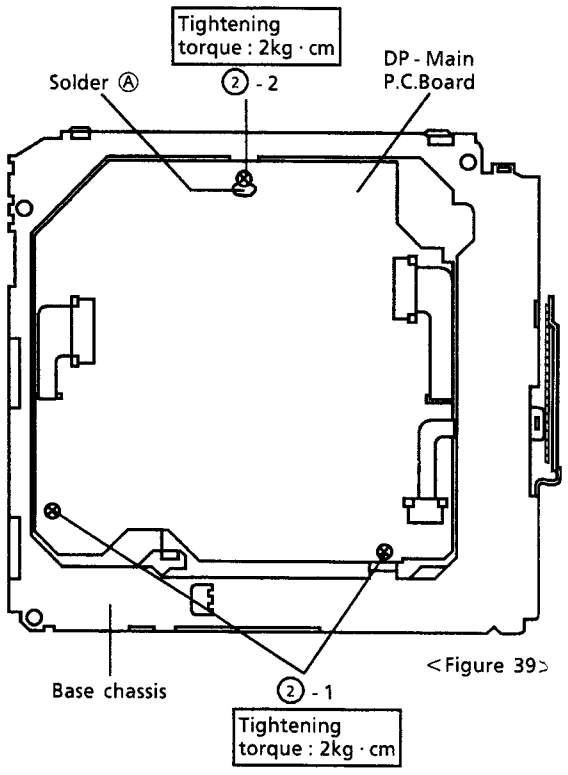
<Figure 38>

2. DP - Main P.C.Board disassembly

(1) Remove the Solder Ⓐ and three screws ②. (See Figure 39)
(2) Remove the all connectors connected to the DP - Main P.C.Board.
The DP - Main P.C.Board can be removed.

<Assembly note>

● The screw ②- 2 type is different from that of the screws ②- 1.



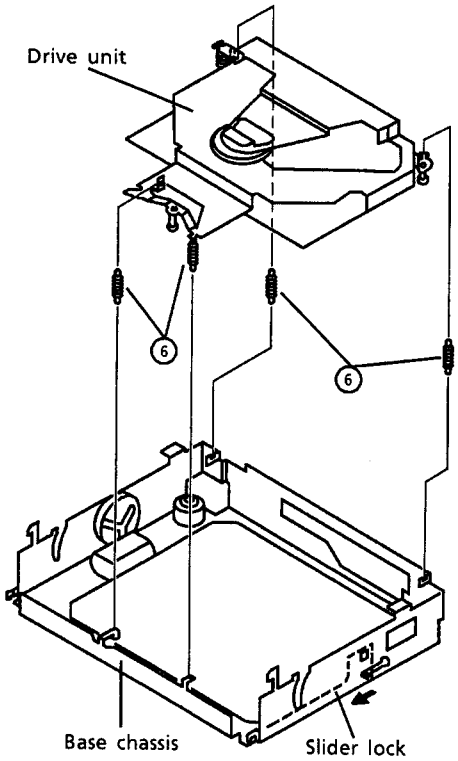
<Figure 39>

3. Drive unit disassembly

(1) Remove two screws ③and one spring ④, the Assy., top chassis can be removed. (See Figure 38)
(2) Remove two springs⑤, the Assy., arm disc can be removed. (See Figure 38)
(3) Remove four springs⑥, pull up the Drive unit. (See Figure 40)
The Drive unit can be removed.

<Assembly note>

● Move the Slider lock fully in the direction indicated by the arrow. (See Figure 40)

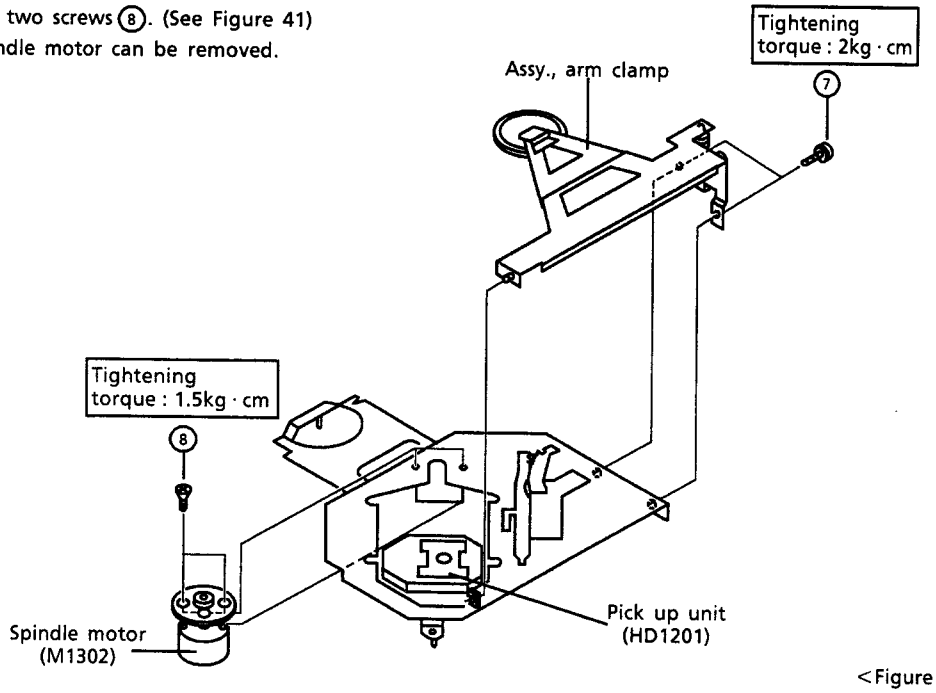


<Figure 40>

4. Spindle motor (M1302) disassembly

(1) Remove two screws (7), the Assy., arm clamp can be removed. (See Figure 41)

(2) Remove two screws (8). (See Figure 41)
The Spindle motor can be removed.



<Figure 41>

5. Pick up unit (HD1201) disassembly

- Wear an electrostatic discharge band when disassembling the Pick up unit. Do not touch the lens or P.C.Board.

(1) Remove two screws (9), the Spring nut can be removed. (See Figure 42)

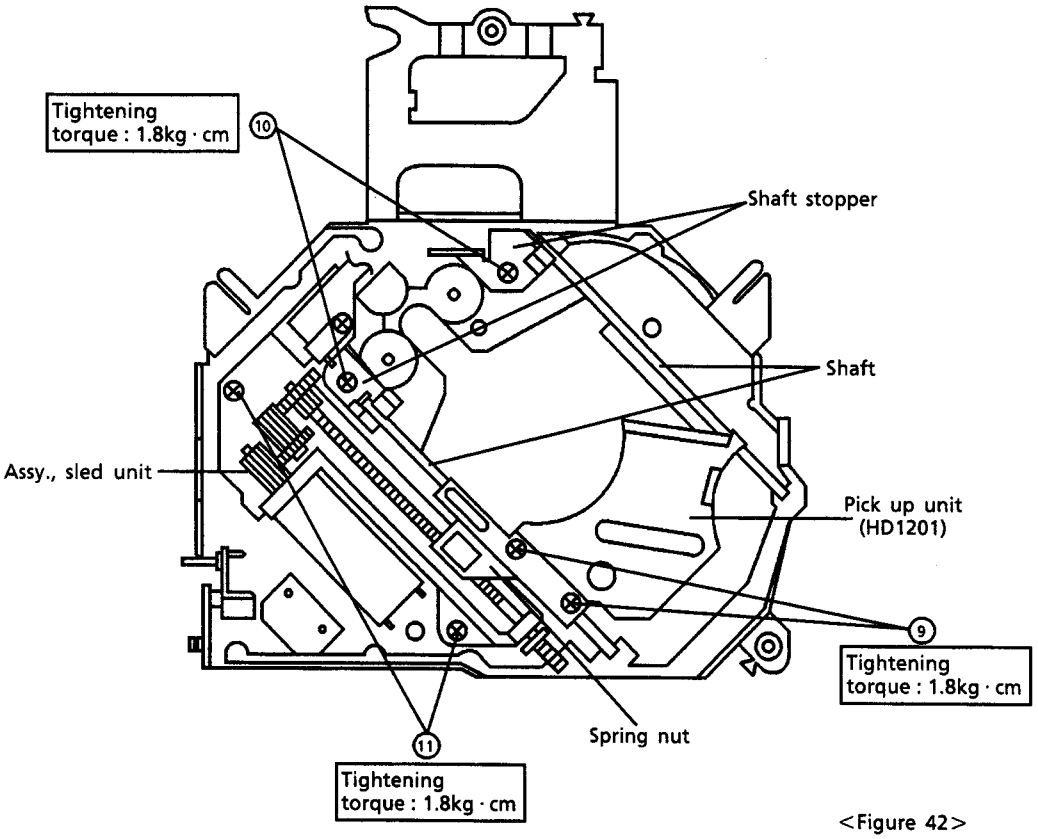
(2) Remove two screws (10), the two Shaft stopper can be removed. (See Figure 42)

(3) Remove two Shaft. (See Figure 42)

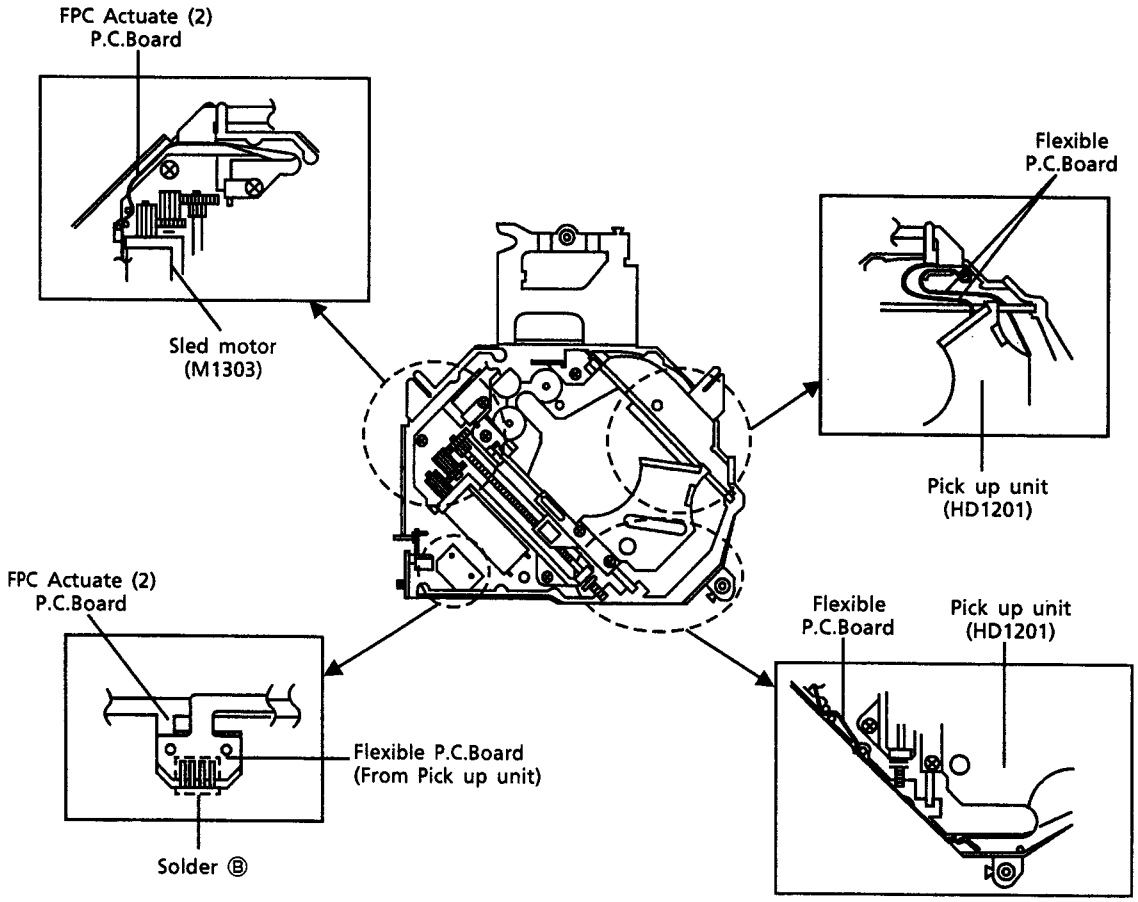
(4) Remove the Solder Ⓑ connected between FPC Actuate (2) P.C.Board and Flexible P.C.Board (Pick up unit). (See Figure 43)
Note : Don't cut Flexible P.C.Board by removing Solder Ⓑ. The Pick up unit can be removed.

<Assembly notes>

- Always wear an electrostatic discharge band.
- Never touch the lens of the Pick up unit or P.C.Board.
- Form the two Flexible P.C.Board from the Pick up unit as shown in Figure 43.



<Figure 42>



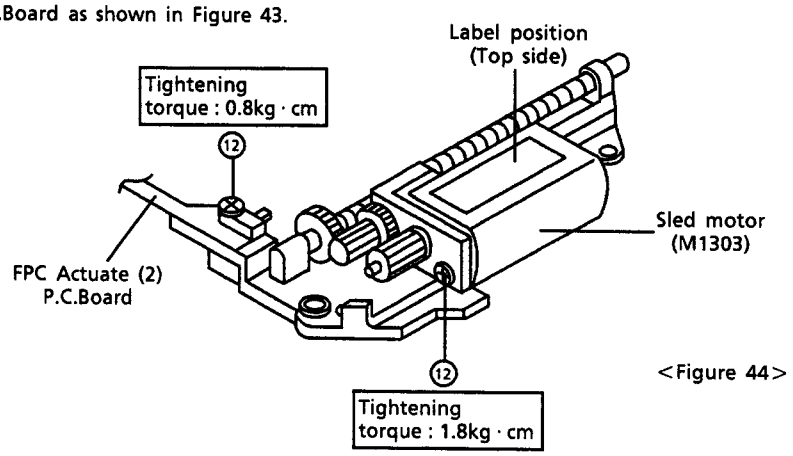
<Figure 43>

6. Sled motor (M1303) disassembly

(1) Remove two screws ⑪, the Assy., sled unit can be removed. (See Figure 42)
(2) Remove two screws ⑫. (See Figure 44)
The Sled motor with FPC Actuate (2) P.C.Board can be removed.

<Assembly notes>

- Mount the Sled motor (M1303) so the label position is correct. (See Figure 44)
- Form the FPC Actuate (2) P.C.Board as shown in Figure 43.



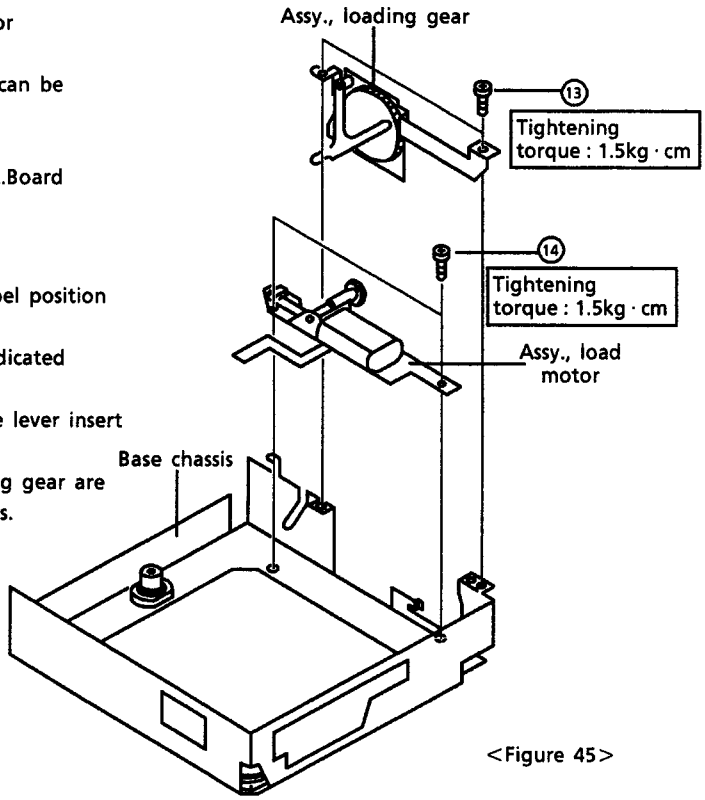
<Figure 44>

7. Loading motor (M1301) disassembly

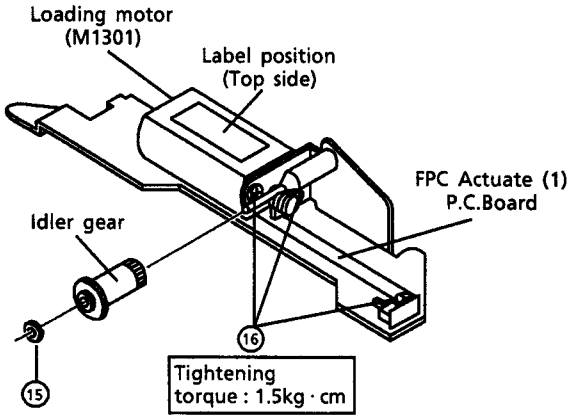
(1) Remove two screws ⑬, the Assy., loading gear can be removed. (See Figure 45)
(2) Remove two screws ⑭, the Assy., load motor can be removed. (See Figure 45)
(3) Remove a washer ⑮ (M1.2), the Idler gear can be removed. (See Figure 46)
(4) Remove three screws ⑯. (See Figure 46)
The Loading motor with FPC Actuate (1) P.C.Board can be removed.

<Assembly notes>

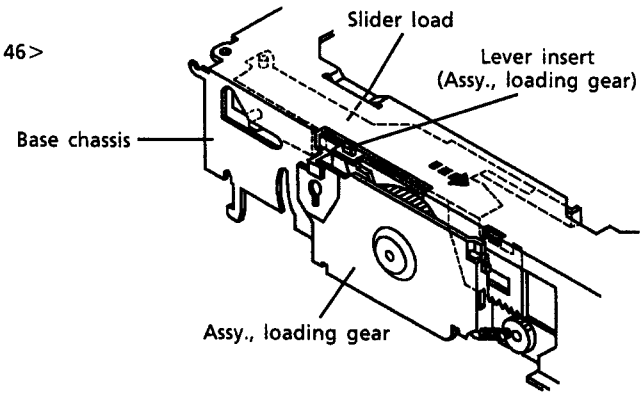
- Mount the Loading motor (M1301) so the label position is correct. (See Figure 46)
- Move the Slider load fully in the direction indicated by the arrow. (See Figure 47)
- When the Assy., loading gear is assemble, the lever insert a hole of the Slider load. (See Figure 47)
- When the Assy., load motor and Assy., loading gear are assemble, first set position next tighten screws.



<Figure 45>



<Figure 46>



<Figure 47>

MEMO

Schematic Diagram

IC	IC1103	IC1507	IC1102	IC1109	IC1101	IC1106	IC1210
Transistor (Q,PT)	PT1501 PT1502 PT1503 PT1504 PT1505 Q1103 Q1502 Q1501 Q1503 Q1111 Q1508 Q1102 Q1114 Q1112 Q1115 Q1113 Q1116						

LED P.C.Board

DP-Main P.C.Board

Pick Up Unit (HD1201)

LASER DIODE

M1303 SLED MOTOR

M1302 SPINDLE MOTOR

M1301 LOADING MOTOR

IC1103 BA6298FP

TRACKING/FOCUS/SLED/ SPINDLE SERVO DRIVER

IC1102 TA8191F RF AMP SERVO CONTROL

IC1101 TC9236AF DIGITAL SIGNAL PROCESSOR

IC1106 SM5840CS

IC1109 TC7SU04F2

IC1507 LB1638M

IC1210 NJM78L05UA

Q1111 2SC2412K

Q1102 2SA1037K

Q1115 DTA124EU

Q1112 DTC114TU

Q1113 DTC114TU

Q1116 DTC124EU

Q1114 DTC124EU

Q1501 2SB1188

Q1502 DTC124EU

Q1503 2SD1383K

Q1103 2SB1132

Q1508 2SB1132

SUB BEAM CONTROL

SOLENOID DRIVER

SCRATCH CD DETECTOR

SWITCHING

PD CONTROL

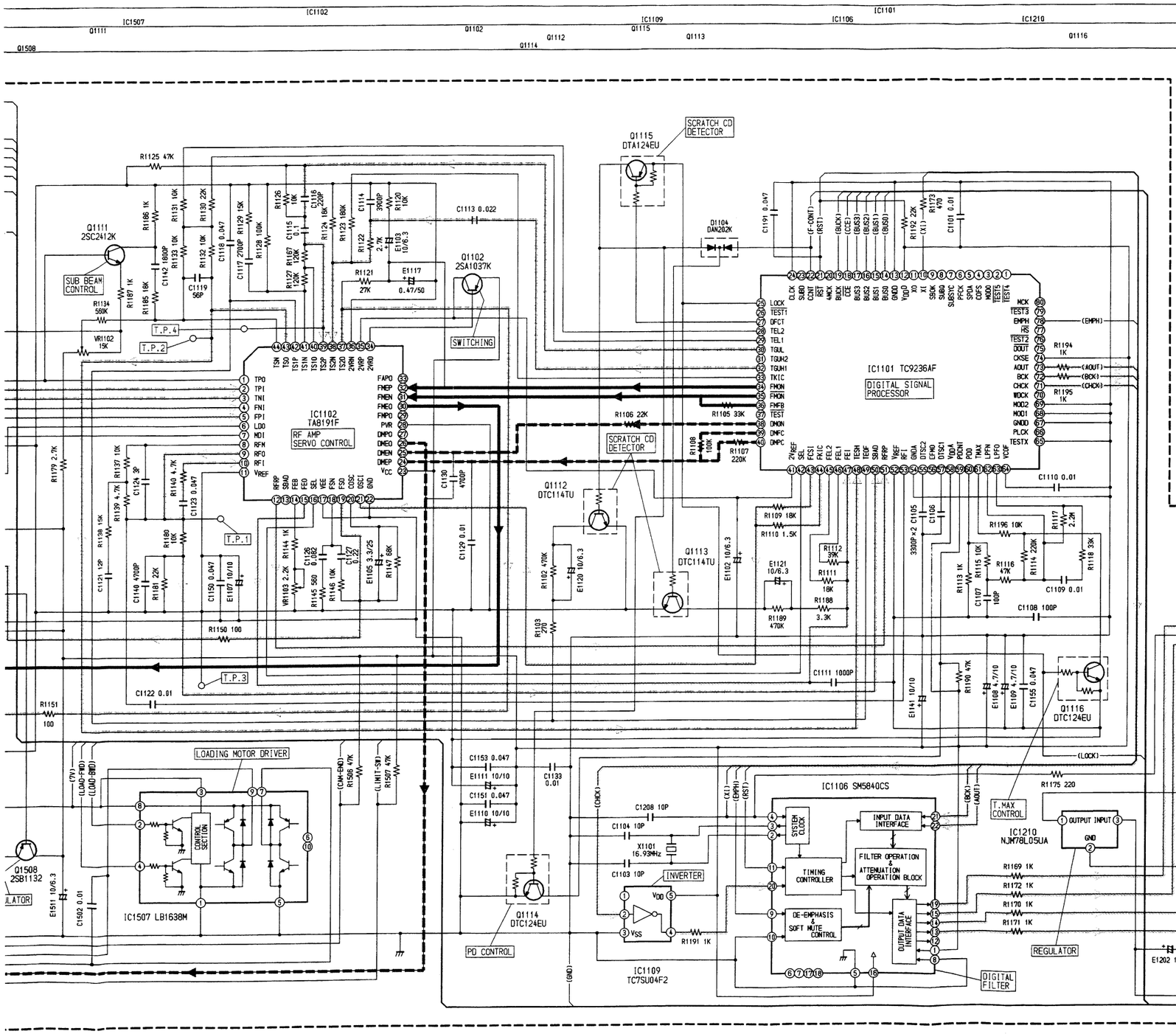
REGULATOR

INVERTER

T.M.X CONTROL

DIGITAL FILTER

[注記]
1. Cの単位：C無記
2. Rの単位：R無記



IC1101

1	4.8V	21	5V	41	4.3V	61	PS
2	4.8V	22	0V	42	5.1V	62	2.3V
3	NC	23	PS	43	2.6V	63	2.5V
4	PS	24	0V	44	2.6V	64	1.6V
5	PS	25	5.1V	45	2.2V	65	0V
6	PS	26	4.8V	46	2.2V	66	PS
7	PS	27	4.7V	47	2.2V	67	0.1V
8	PS	28	2.2V	48	2.2V	68	0.1V
9	5.1V	29	2.2V	49	2.2V	69	0.1V
10	2.5V	30	2.2V	50	2.5V	70	PS
11	2.4V	31	0.4V	51	2.4V	71	PS
12	5.1V	32	0.4V	52	2.2V	72	PS
13	0V	33	1.7V	53	PS	73	PS
14	PS	34	2.2V	54	0.1V	74	5.1V
15	PS	35	2.2V	55	2.6V	75	0V
16	PS	36	2.1V	56	2.6V	76	5V
17	PS	37	5V	57	2.6V	77	5.1V
18	PS	38	2.2V	58	5.1V	78	0V
19	PS	39	PS	59	PS	79	5V
20	PS	40	PS	60	PS	80	PS

IC1102

1	1.7V	16	4.9V	31	2V		
2	2V	17	0V	32	2.1V		
3	2V	18	PS	33	PS		
4	2V	19	PS	34	4.4V		
5	2V	20	PS	35	4.3V		
6	3.9V	21	2.4V	36	2.1V		
7	0.1V	22	0V	37	PS		
8	2.1V	23	5V	38	2V		
9	PS	24	PS	39	2V		
10	PS	25	2.1V	40	PS		
11	2.1V	26	PS	41	2V		
12	PS	27	PS	42	2.1V		
13	2.7V	28	2.1V	43	2.1V		
14	2V	29	2.1V	44	2.1V		
15	PS	30	2V				

IC1103

1	2.8V	15	5.8V
2	3V	16	2.1V
3	2.2V	17	3.1V
4	2.2V	18	2.6V
5	5.6V	19	2V
6	5.1V	20	2.2V
7	6.2V	21	6.2V
8	0V	22	6.2V
9	2.2V	23	2.1V
10	2.4V	24	2.2V
11	3.2V	25	2.1V
12	2.6V	26	2.7V
13	0V	27	3V
14	5.8V	28	0V

IC1106

1	5.1V
2	2.6V
3	2.6V
4	PS
5	0V
6	0V
7	0V
8	5.1V
9	0V
10	0V
11	4.9V
12	PS
13	PS
14	PS
15	PS
16	5.1V
17	0V
18	0V
19	PS
20	PS
21	PS
22	PS

IC1203

1	4.6V
2	3.45V
3	3.45V
4	0V
5	3.45V
6	3.45V
7	4.6V
8	8.94V

IC1507

1	0V
2	0V
3	6.2V
4	0V
5	0V
6	NC
7	0V
8	6.2V
9	0V
10	NC

	E	C	B
Q1102	5.1V	4.3V	4.5V
Q1103	4.6V	1.8V	4V
Q1111	1.1V	1.2V	1.8V
Q1112	2.2V	2.1V	0V
Q1113	2.1V	2.1V	5V
Q1114	0V	5V	0V
Q1115	5V	0V	5V
Q1116	2.1V	2.1V	5V
Q1501	14V	0V	14V
Q1502	0V	14V	0V
Q1503	0V	0V	0V
Q1508	6.2V	5.1V	5.6V

IC1109

1	NC
2	PS
3	0V
4	PS
5	5.1V

IC1202

1	4.9V	11	0V
2	3.45V	12	3.45V
3	0V	13	0V
4	3.45V	14	3.45V
5	2.78V	15	2.78V
6	4.15V	16	4.15V
7	3.45V	17	3.45V
8	0V	18	0V
9	3.45V	19	5V
10	0V	20	5V

IC1210

1	8.94V
2	0V
3	5V

[端子電圧測定条件]

1. 電源電圧 ：DC14V
2. 測定機器 ：デジタルマルチボルトメーター
3. 測定基準 ：対アース間
4. 測定条件 ：テストCD (YEDS-18)をPLAYしている状態

[Measuring Conditions]

1. Power Supply Voltage : DC14V
2. Measuring Meter : Digital Multi Volt Meter
3. Measuring Point Reference : Between Ground
4. Measuring Condition : Test Disc Play (YEDS-18)

R-ch Signal Line
L-ch Signal Line
CD Signal Line (Digital)
Focus Servo Signal Line
Tracking Servo Signal Line
Sled Servo Signal Line
Spindle Servo Signal Line

[注記]

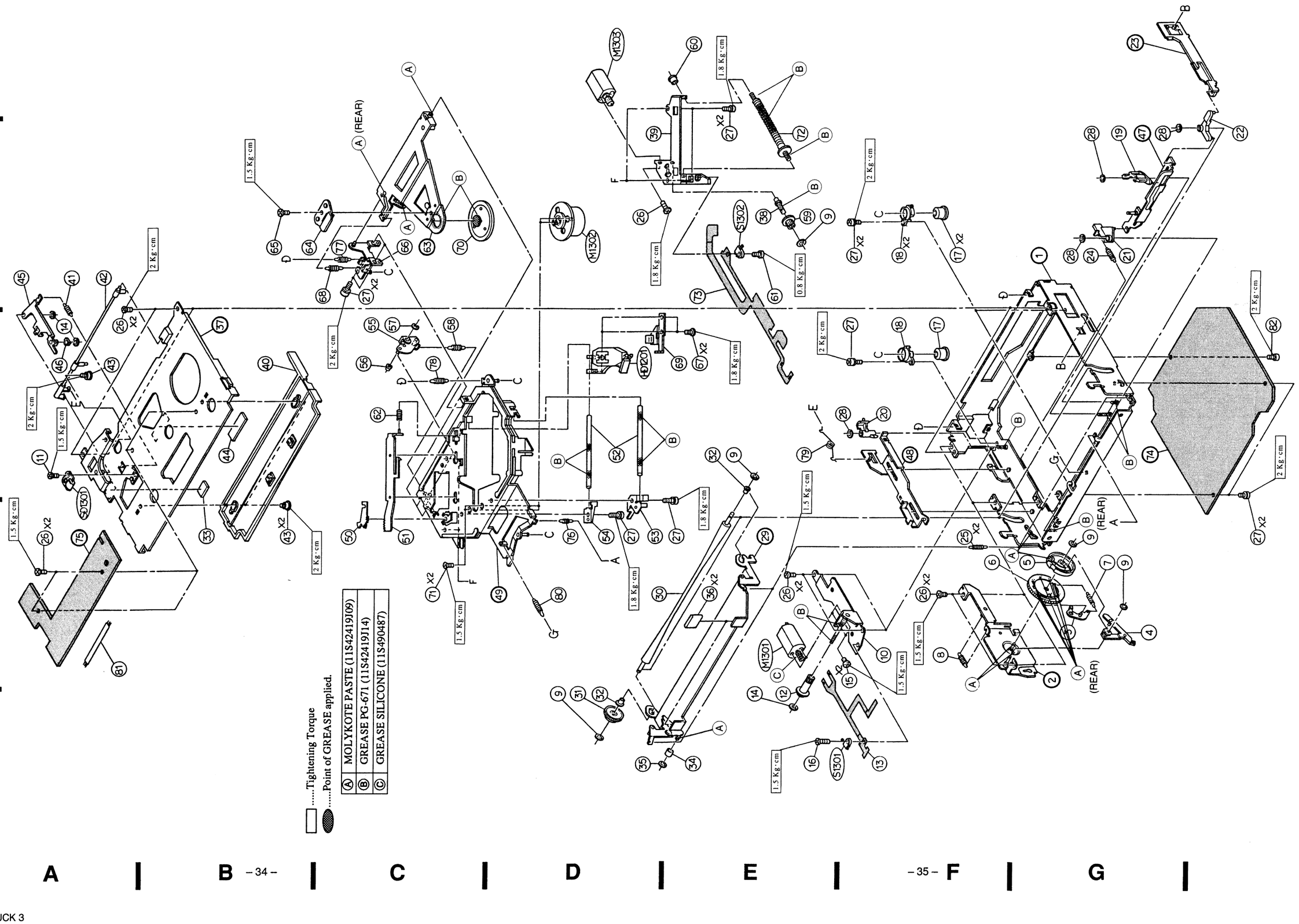
1. Cの単位：C無記入→μF、P→PF、／V→耐電圧を示す。
2. Rの単位：R無記入→Ω、K→KΩ、M→MΩ

NOTES:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

Exploded View (CD Mechanism)

CD I



Symbol No.
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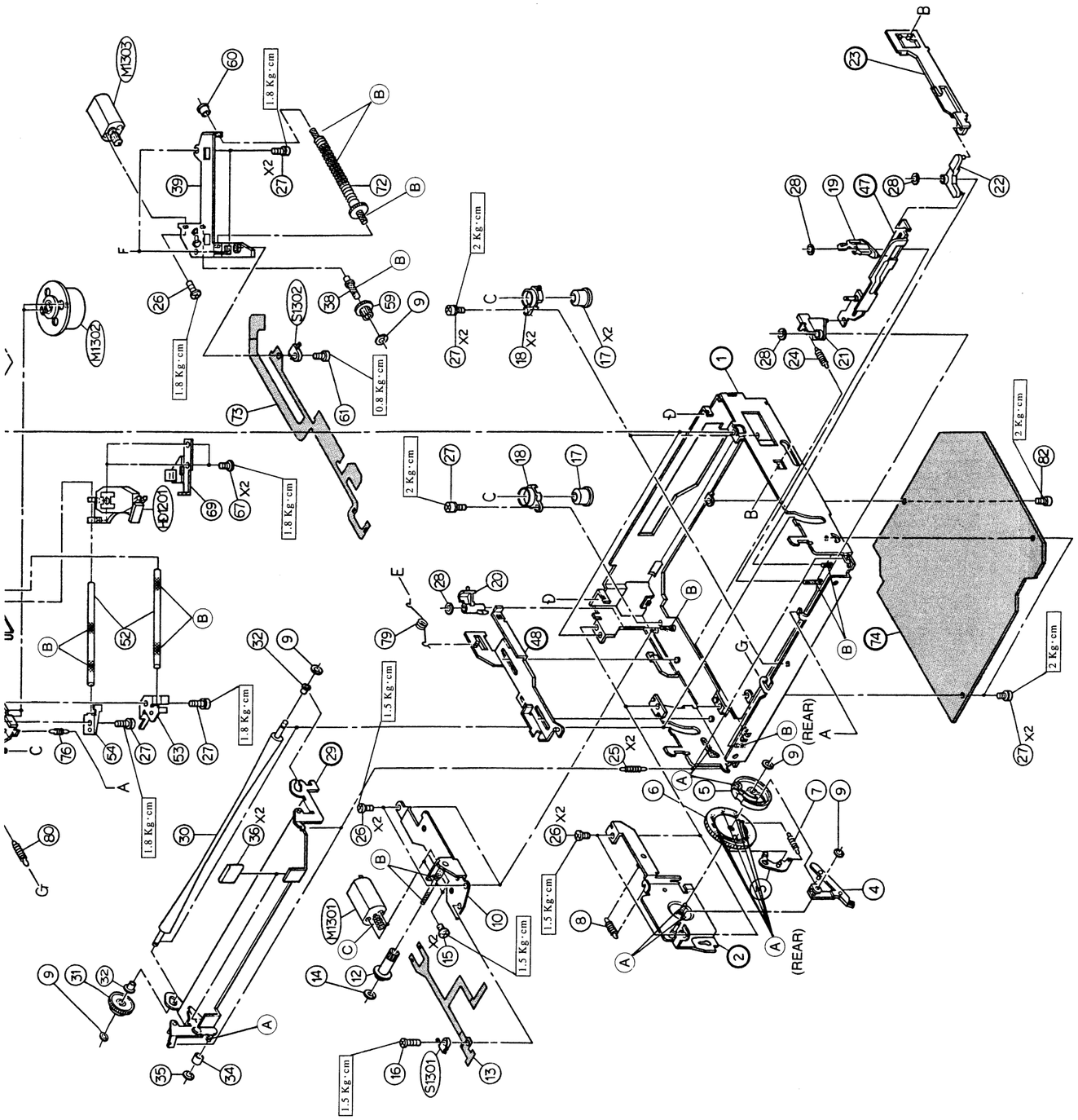

CD Mechanism Assembly Parts List

Note : No parts number on parts list are not supplied.

Symbol No.	Index	Part No.	Description
3	4-G	01A50856W01	Assy., Riv. Timing
4	4-G	01A50854W01	Assy., Riv. Lever Cam
5	4-G	45B50814W01	Cam, Loading
6	4-F	44B50813W01	Gear, Cam
7	4-G	41B50978W02	Spring, Pull
8	4-F	41B50978W05	Spring, Pull
9		04B41345P12	Washer, Lock (M1.7)
10	4-F	01A50852W01	Assy., Riv. Bracket Motor
11	3-A	03S94385F02	Screw, Pan (M1.7×3)
12	5-E	44B50812W01	Gear, Idler
13	5-F	84T55236W01	FPC Actuate(1) P.C.Board
14		04B41345P15	Washer, Lock (M1.2)
15	5-F	03S94385F07	Screw, Pan (M2×2)
16	5-E	03S94385F11	Screw, Pan (M2×5.2)
17		75B58086W01	Damper, DP-H
18		15A40136W01	Holder, Damper-S
19	2-G	45B50815W01	Arm, Lock (F)
20	3-F	45B50816W01	Arm, Lock (R)
21	2-G	45A50817W01	Arm, Link (L)
22	2-H	45A50818W01	Arm, Link (R)
24	2-G	41B50978W01	Spring, Pull
25	4-F	41B50978W04	Spring, Pull
26		03S94385F09	Screw, Pan (M2×3)
27		03S40014G07	Screw, W/Washer (M2×4)
28		04B41345P45	Washer, Lock (M2.1)
30	4-D	49B51428W01	Roller, (G) DP-H
31	5-D	01T55276W01	Assy., Clutch DP-H
32		43A51504W01	Bush, Roller
33	4-B	75A58090W01	Sheet, Arm Solenoid
34	5-E	43A50843W01	Roller, Link
35	5-D	04B41345P18	Washer, Lock (M1.2)
36	4-E	75A58084W01	Rubber, Arm Guide
38	2-E	46A50694W01	Stud, Middle
39	2-D	07B50702W01	Bracket, Motor
40	3-B	15C50819W01	Guide, Top DP-H
41	2-A	41B50978W03	Spring, Pull
42	2-A	01V53900W76	Assy., Arm Stopper
43		03A58045W01	Screw, Special (M2×3.9)
44	3-B	75A58082W01	Sheet, Mag DP-H
45	2-A	01A50849W01	Assy., Riv. Arm Solenoid
46	3-A	07A50997W01	Plate, Solenoid
50	4-C	45A50678W01	Lever, Pinlock
51	4-C	45B50676W01	Lever, Link
52	3-D	47A50698W01	Shaft, Pickup
53	4-D	07A50688W01	Stopper, Shaft (A)
54	4-D	07A50689W01	Stopper, Shaft (B)
55	3-C	01A50673W01	Assy., Riv. Lever Arm
56	3-C	43A50701W01	Bush, Lever
57	3-C	04C42091G06	Ring, "E" (M1.5)
58	3-C	41B50978W06	Spring, Pull
59	2-E	44A50680W01	Gear, Middle
60	1-E	43A50684W01	Bush, Slider
61	2-E	03S70494F12	Screw, Pan (M2×8)
62	3-C	41A50707W01	Spring, Comp
64	2-B	07A50687W01	Stopper, Clamp
65	2-B	03S94385F01	Screw, Pan (M1.7×2.3)
66	2-C	01A50672W01	Assy., Riv. Bracket Arm Clamp
67	3-E	03S94385F32	Screw, Pan (M2×2.2)
68	2-C	41B50978W07	Spring, Pull
69	3-F	41A50682W01	Spring, Nut
70	2-C	43A50683W01	Table, Clamper
71	4-C	03S94385F29	Screw, Countersink (M1.7×4)
72	2-E	01V51800W71	Assy., Shaft Screw
73	2-E	84T55237W01	FPC Actuate(2) P.C.Board
76	4-D	41B50978W08	Spring, Pull
77	2-C	41B50978W09	Spring, Pull
78	3-C	41B50978W10	Spring, Pull
79	3-E	41A50977W01	Spring, Lever
80	4-D	41B50978W11	Spring, Pull
81	4-A	30T25426W03	Wire, Parallel (3P)
82	3-H	03S43997P61	Screw, Round (M2×4)

Miscellaneous

HD1201	3-D	88T55261W01	Pick Up Unit
M1301	4-E	01V53900W77	Assy., Loading Motor (3.5V-110mA)
M1302	2-D	59T55262W01	Motor, Spindle (3V-120mA)
M1303	1-D	01V54100W69	Assy., Sled Motor (3.5V-110mA)
S1301	5-E	40T71025F03	Switch, Detector (CAM END)
S1302	2-E	40T71025F03	Switch, Detector (LIMIT)
SD1301	4-A	01T55277W01	Assy., Solenoid DP-H

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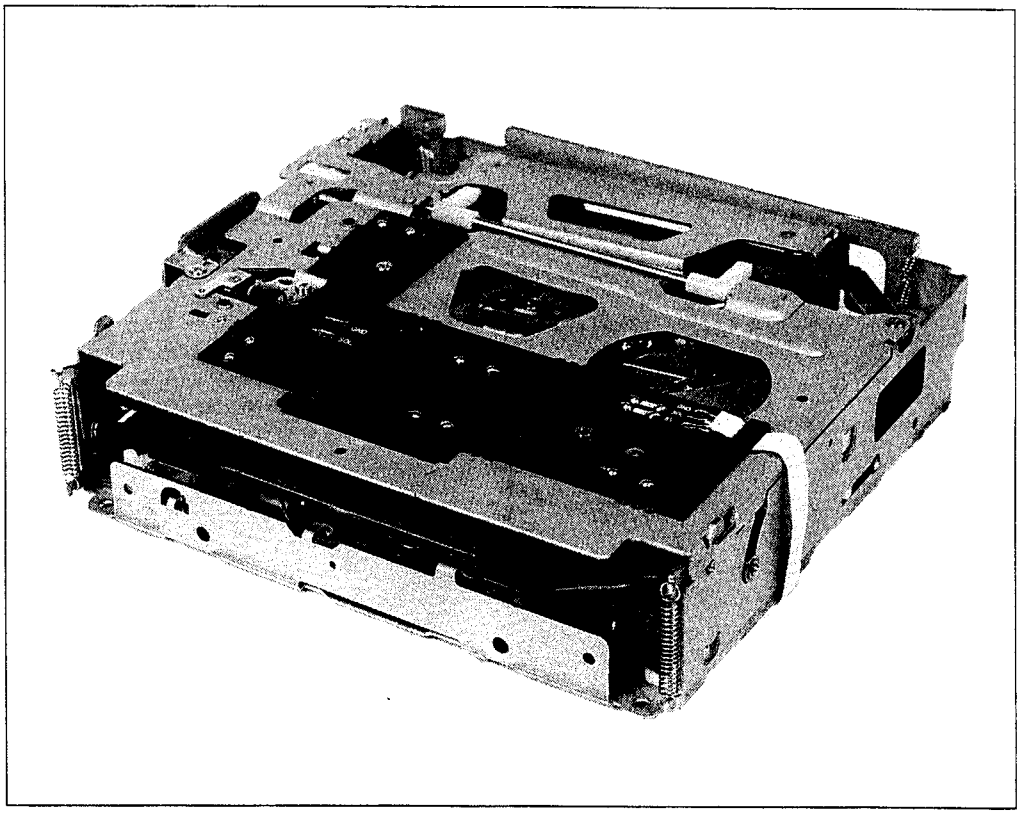
SERVICE MANUAL

CD Player Mechanism

– ADDENDUM & REVISED –

● For information that is not mentioned in this service manual, refer to the Service Manual • DP-H SERIES (68P51097W01).



DP-H SERIES

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CD Mechanism Assembly Parts List

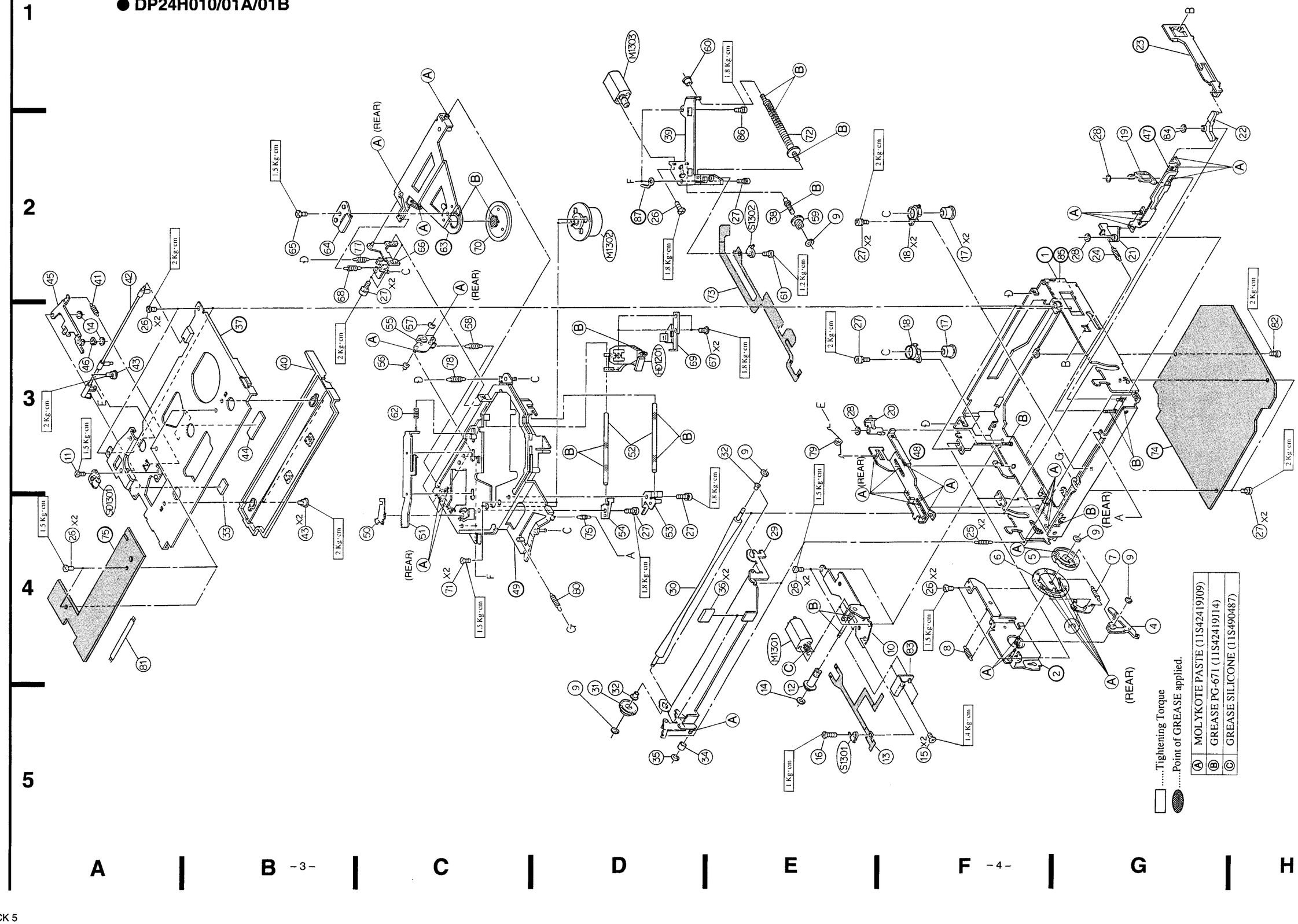
Note : The parts is not mentioned, refer to the Service Manual DP-H SERIES (68P51097W01).

Symbol No.	Index	Part No.	Description
15	5-F	03S94385F19	Screw, Pan (M2×2.5)
61	2-E	03S68555F03	Screw, Pan (M2×8)
84	2-G	04B41345P47	Washer, Lock (M2.1)
86	2-E	03S40014G61	Screw, W/Washer (M2×5)

Symbol No.	Index	Part No.	Description

Exploded View (CD Mechanism)

● **DP24H010/01A/01B**



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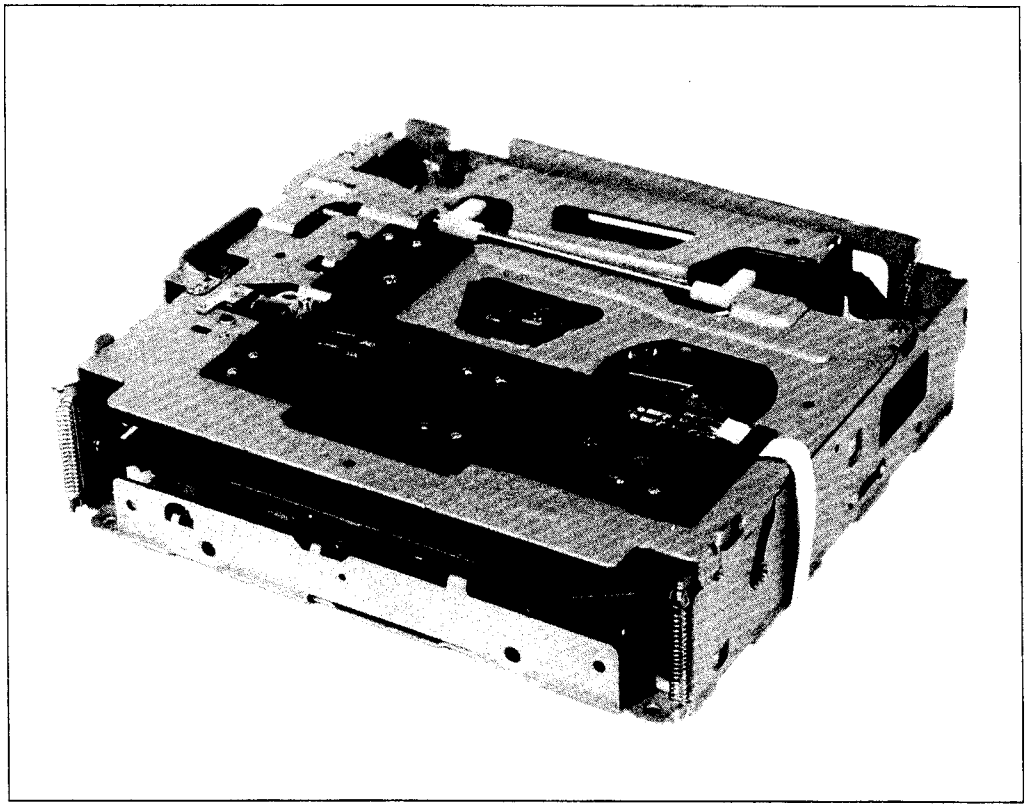
SERVICE MANUAL

CD Player Mechanism

– ADDENDUM & REVISED (II) –

● For information that is not mentioned in this service manual, refer to the Service Manual • DP-H SERIES (68P51097W02).



DP-H SERIES

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CD Mechanism Assembly Parts List (Only Difference) 2
Exploded View (CD Mechanism) ..... 3 to 4

CD Mechanism Assembly Parts List

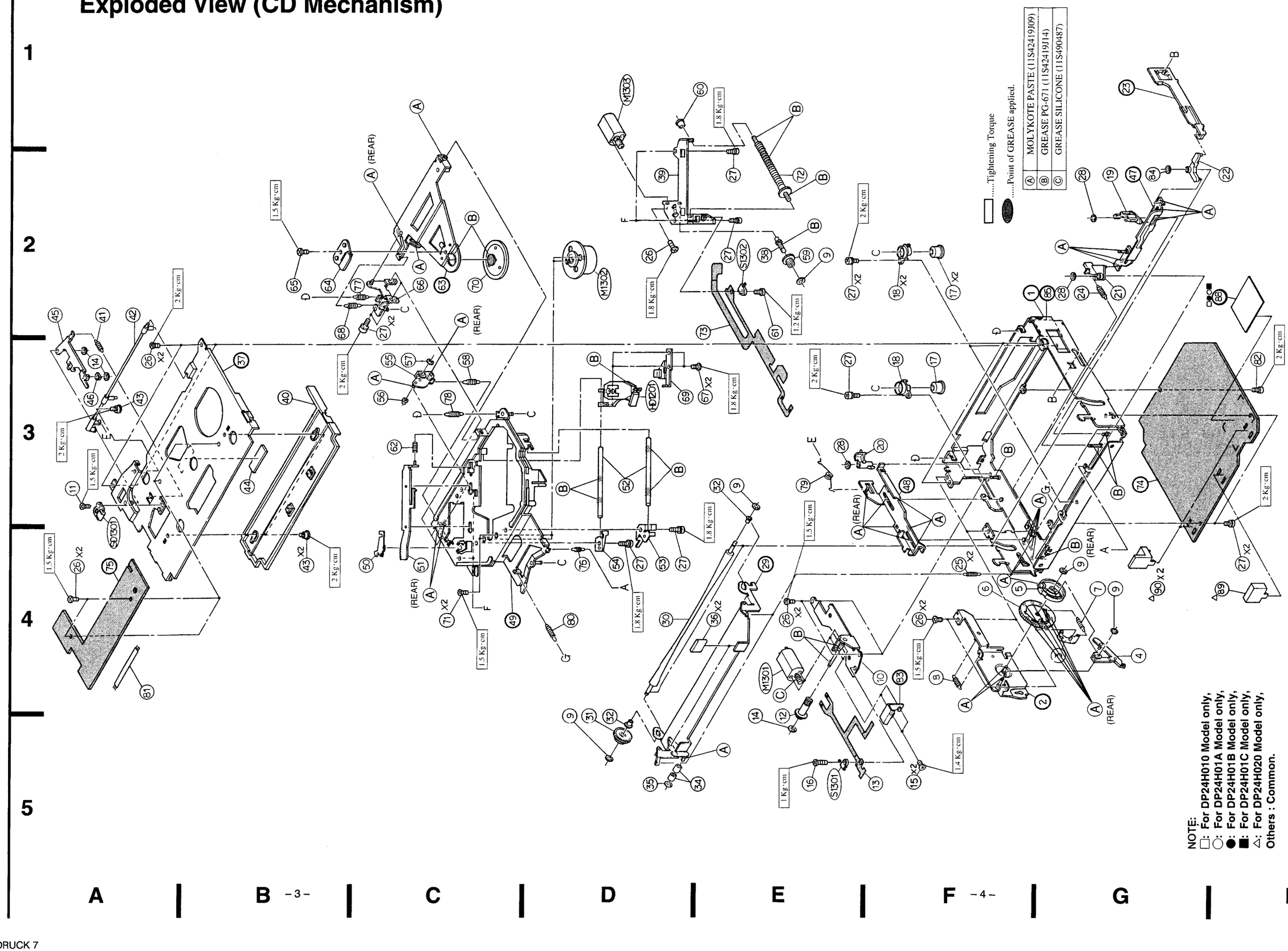
Note : The parts is not mentioned, refer to the Service Manual DP-H Series (68P51097W02).

Symbol No.		Index	Part No.	Description
	52	3-D	47A61203W01	Shaft, Pick up
△	89	5-H	15A61057W01	Cover, Photo (A)
△	90	5-G	15A61058W01	Cover, Photo (B)

Symbol No.	Index	Part No.	Description

Note : △: For DP24H020 Model Only, Others : Common.

Exploded View (CD Mechanism)



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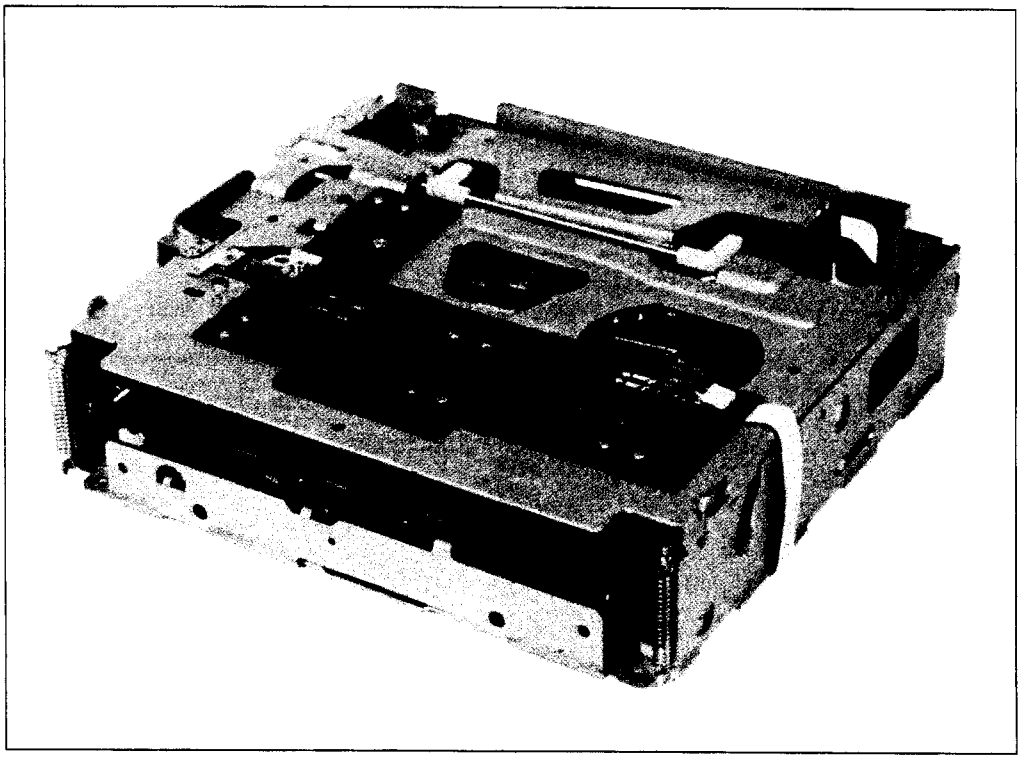
SERVICE MANUAL

CD Player Mechanism

ADDENDUM & REVISED (III)

- This manual is described on DP24H02A/02D only. The DP24H02A/02D is developed from DP24H020. For information that is not mentioned in this service manual, refer to the Service Manual • DP-H Series-ADDENDUM & REVISED (II) (68P51097W03).
- 当マニュアルはDP24H02A/02Dについてのみ記載しております。又、DP24H020がベースモデルとなっておりますので、相違部分のみ記載されております。詳細についてはDP-Hシリーズ(追補／改訂版-II) (68P51094W03) を参照願います。



DP-H SERIES

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CD Mechanism Assembly Parts List (Only Difference) 2
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CD Mehanism Assembly Parts List

Note : The parts is not mentioned, refer to the Service Manual DP-H SERIES (68P51097W03).

Symbol No.		Index	Part No.	Description
	11	3-A	03A71504W01	Screw, Special (M1.7×3)
▲	17		75B58086W02	Damper, DP-H
×	17		75B58086W01	Damper, DP-H
	52	3-D	47A50698W01	Shaft, Pickup
	64	2-B	07A70999W01	Stopper, Clamp
▲	68	2-C	41B50978W12	Spring, Pull
×	68	2-C	41B50978W07	Spring, Pull
▲	80	4-D	41B50978W13	Spring, Pull
×	80	4-D	41B50978W11	Spring, Pull
	91	2-A	04S40075G07	Washer, Polyslider (M2.1)
	92	2-E	01T70458F02	Assy., GND Wire
	93	2-E	03S40014G83	Screw, W/Washer (M2×4.5)
	94	3-G	14A71174W01	Insulator, Cover
	95	3-G	14A71175W01	Insulator, Cover

Symbol No.	Part No.	Description
	Miscellaneous	
▲	M1301 01V53900W77	Assy., Loading Motor (3.5V-110mA)
×	M1301 01V73300W68	Assy., Loading Motor (7V-370mA)

Notes : ▲ : For DP24H02A Model Only, × : For DP24H02D Model Only, Others : Common.

CDメカニズム関係部品表

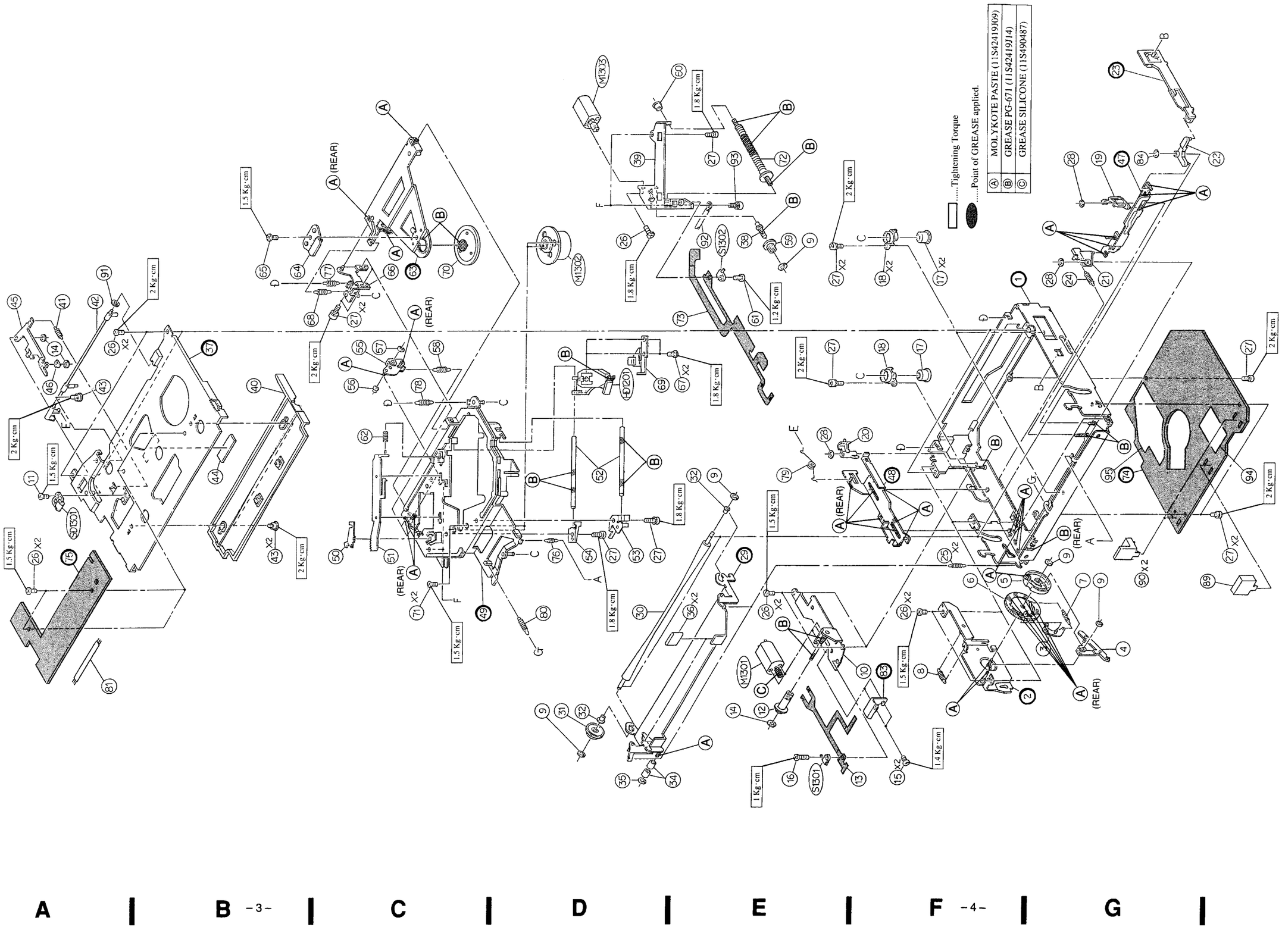
※ 記載されていない部品については、サービスマニュアル・DP-H シリーズ (68P51094W03) を参照願います。

記号		索引	部品番号	部品名	標準卸価格
	11	3-A	03A71504W01	Screw, Special (M1.7×3)	65
▲	17		75B58086W02	Damper, DP-H	530
×	17		75B58086W01	Damper, DP-H	530
	52	3-D	47A50698W01	Shaft, Pickup	210
	64	2-B	07A70999W01	Stopper, Clamp	65
▲	68	2-C	41B50978W12	Spring, Pull	80
×	68	2-C	41B50978W07	Spring, Pull	55
▲	80	4-D	41B50978W13	Spring, Pull	80
×	80	4-D	41B50978W11	Spring, Pull	45
	91	2-A	04S40075G07	Washer, Polyslider (M2.1)	45
	92	2-E	01T70458F02	Assy., GND Wire	65
	93	2-E	03S40014G83	Screw, W/Washer (M2×4.5)	45
	94	3-G	14A71174W01	Insulator, Cover	45
	95	3-G	14A71175W01	Insulator, Cover	90

記号		部品番号	部品名	標準卸価格
		その他の電気部品		
▲	M1301	01V53900W77	Assy., Loading Motor (3.5V-110mA)	1.140
×	M1301	01V73300W68	Assy., Loading Motor (7V-370mA)	1.100

注記 : ▲: DP24H02A モデル専用 × : DP24H02D モデル専用 その他 : 共通

Exploded View (CD Mechanism)



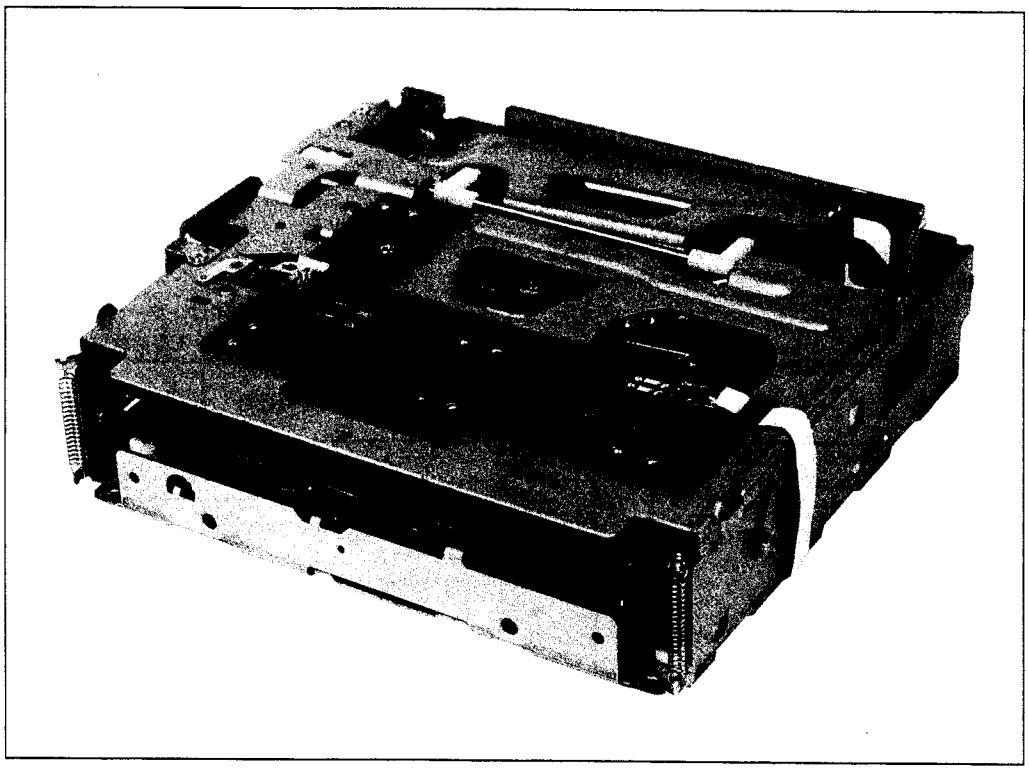
ALPINE®

SERVICE MANUAL

CD Player Mechanism

ADDENDUM & REVISED (IV)

- This manual is described on DP24H02B/02C only. The DP24H02B/02C is developed from DP24H020. For information that is not mentioned in this service manual, refer to the Service Manual • DP-H SERIES-ADDENDUM & REVISED (II) (68P51097W03).
- 当マニュアルはDP24H02B/02Cについてのみ記載しております。又、DP24H020がベースモデルとなっておりますので、相違部分のみ記載されております。詳細についてはDP-Hシリーズ (追補／改訂版-II) (68P51094W03) を参照願います。



DP-H SERIES

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CD Mechanism Assembly Parts List

NOTE : For the parts not mentioned, refer to the Service Manual DP-H SERIES (68P51097W03).

Symbol No.	Index	Part No.	Description
11	3-A	03A71504W01	Screw, Special (M1.7×3)
17		75B58086W01	Damper, DP-H
52	3-D	47A50698W01	Shaft, Pickup
64	2-B	07A70999W01	Stopper, Clamp
68	2-C	41B50978W07	Spring, Pull
80	4-D	41B50978W11	Spring, Pull
91	2-A	04S40075G07	Washer, Polyslider (M2.1)
92	2-E	01T70458F02	Assy., GND Wire
93	2-E	03S40014G83	Screw, W/Washer (M2×4.5)
94	3-G	26A80064W01	Insulator, Cover
95	3-G	14A71175W01	Insulator, Cover

Symbol No.	Index	Part No.	Description
Miscellaneous			
M1301	4-E	01V73300W68	Assy., Loading Motor (7V-370mA)
○ M1302	2-D	59T55262W01	Motor Spindle (3V-120mA)
□ M1302	2-D	01V81500W96	Assy., Table Spindle

NOTE : ○ : For DP24H02B Model Only, □ : For DP24H02C Model Only, Others : Common.

CDメカニズム関係部品表

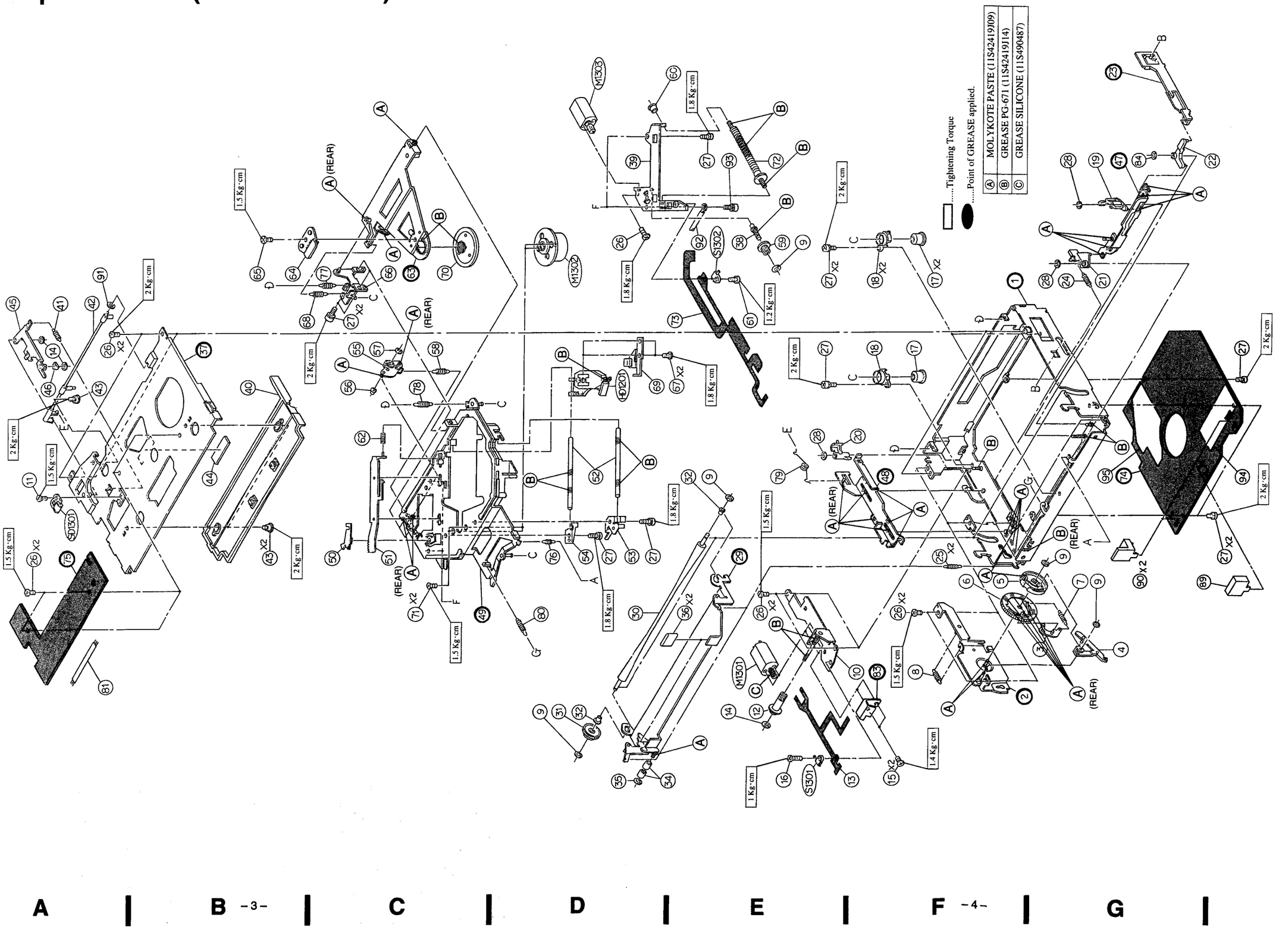
※ 記載されていない部品については、サービスマニュアル・DP-H シリーズ (68P51094W03) を参照願います。

記号	索引	部品番号	部品名	標準卸価格
11	3-A	03A71504W01	Screw, Special (M1.7×3)	65
17		75B58086W01	Damper, DP-H	530
52	3-D	47A50698W01	Shaft, Pickup	210
64	2-B	07A70999W01	Stopper, Clamp	65
68	2-C	41B50978W07	Spring, Pull	55
80	4-D	41B50978W11	Spring, Pull	45
91	2-A	04S40075G07	Washer, Polyslider (M2.1)	45
92	2-E	01T70458F02	Assy., GND Wire	65
93	2-E	03S40014G83	Screw, W/Washer (M2×4.5)	45
94	3-G	26A80064W01	Insulator, Cover	200
95	3-G	14A71175W01	Insulator, Cover	90

Symbol No.	索引	部品番号	部品名	標準卸価格
その他の電気部品				
M1301	4-E	01V73300W68	Assy., Loading Motor (7V-370mA)	1,110
○ M1302	2-D	59T55262W01	Motor Spindle (3V-120mA)	1,210
□ M1302	2-D	01V81500W96	Assy., Table Spindle	---

NOTE : ○ : For DP24H02B Model Only, □ : For DP24H02C Model Only, Others : Common.

Exploded View (CD Mechanism)



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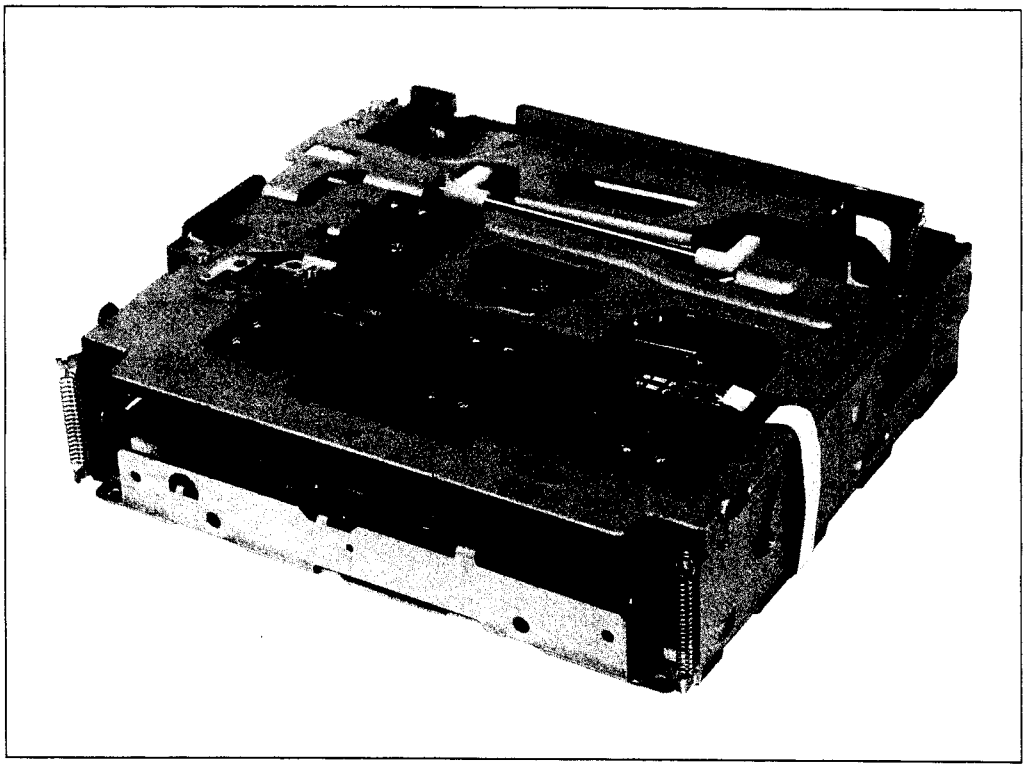
SERVICE MANUAL

CD Player Mechanism

ADDENDUM & REVISED (V)

- This manual is described on DP24H02E/32B only. The DP24H02E/32B is developed from DP24H02A. For information that is not mentioned in this service manual, refer to the Service Manual • DP-H SERIES-ADDENDUM & REVISED (III) (68E21967S01).
- 当マニュアルはDP24H02E/32Bについてのみ記載しております。又、DP24H02Aがベースモデルとなっておりますので、相違部分のみ記載されております。詳細についてはDP-H SERIES-ADDENDUM & REVISED (III) (68E21967S01) を参照願います。



DP-H SERIES

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CD Mechanism Assembly Parts List

NOTE: The parts is not mentioned, refer to the Service Manual DP-H SERIES (68E21967S01).

Symbol No.	Index	Part No.	Description
17		75C80020W01	Damper, DP-H2
70		43A50683W01	Table, Clamper
or		43A80217W01	Table, Clamper-S
91		04S40075G07	Washer, Polyslider (M2.1)
94		26A80064W01	Insulator, Cover (Shield)
96		04B41345P52	Washer, Lock (M1.6)

Symbol No.	Index	Part No.	Description
Miscellaneous			
☆ M1302		01V83100W12	Assy., Spindle Motor (2V-90mA)
★ M1302		59T55262W01	Motor, Spindle (3V-120mA)

NOTE: ☆: For DP24H02E Model Only, ★: For DP24H32B Model Only, Others : Common.

CDメカニズム関係部品表

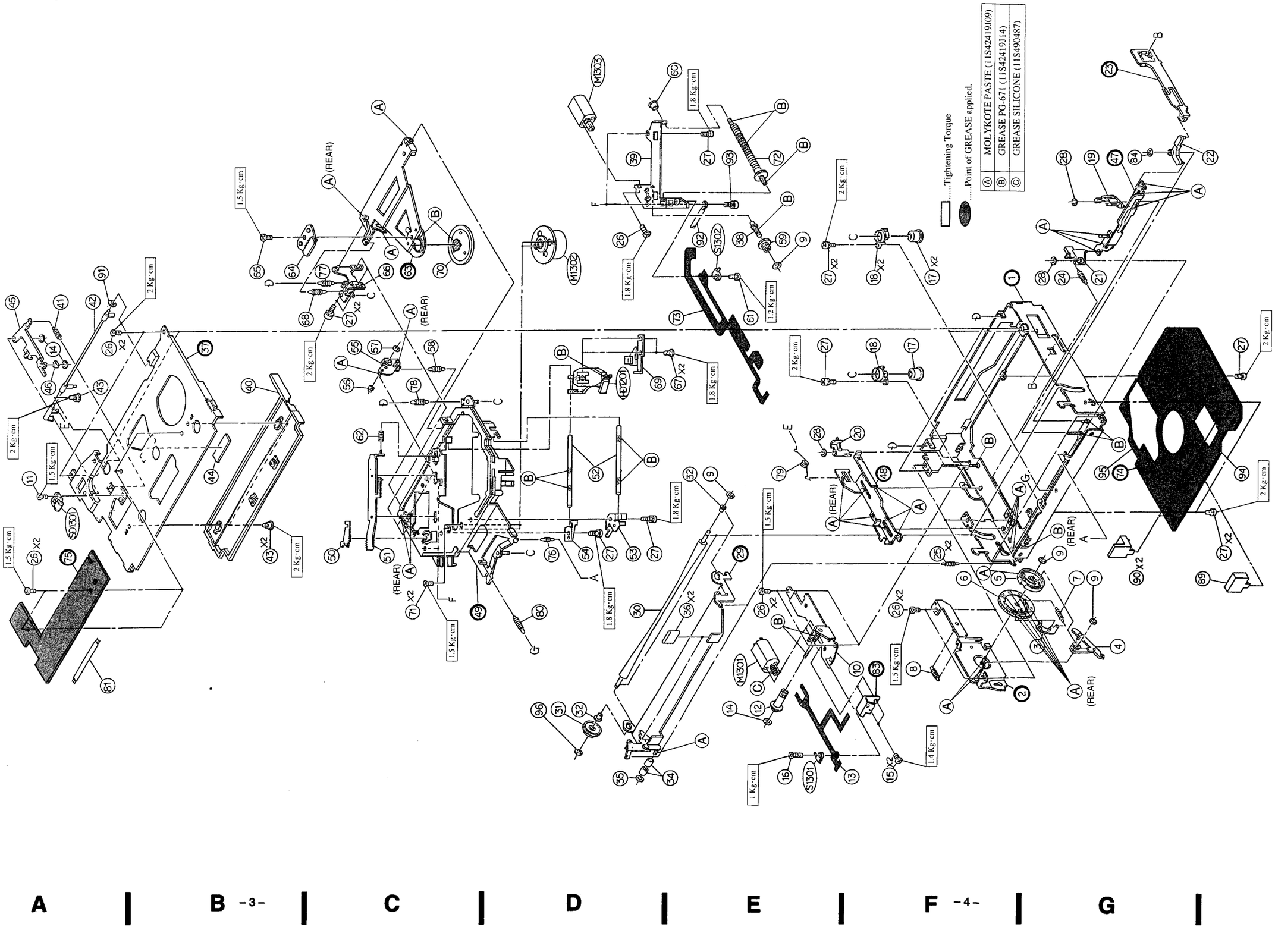
※ 記載されていない部品については、サービスマニュアル DP-H SERIES (68E21967S01) を参照願います。

記号	索引	部品番号	部品名	標準卸価格
17		75C80020W01	Damper, DP-H2	430
70		43A50683W01	Table, Clamper	300
or		43A80217W01	Table, Clamper-S	230
91		04S40075G07	Washer, Polyslider (M2.1)	45
94		26A80064W01	Insulator, Cover (Shield)	200
96		04B41345P52	Washer, Lock (M1.6)	45

記号	索引	部品番号	部品名	標準卸価格
その他の電気部品				
☆ M1302		01V83100W12	Assy., Spindle Motor (2V-90mA)	- - -
★ M1302		59T55262W01	Motor, Spindle (3V-120mA)	1,210

注記: ☆: DP24H02Eモデル専用, ★: DP24H32Bモデル専用, その他: 共通

Exploded View (CD Mechanism)



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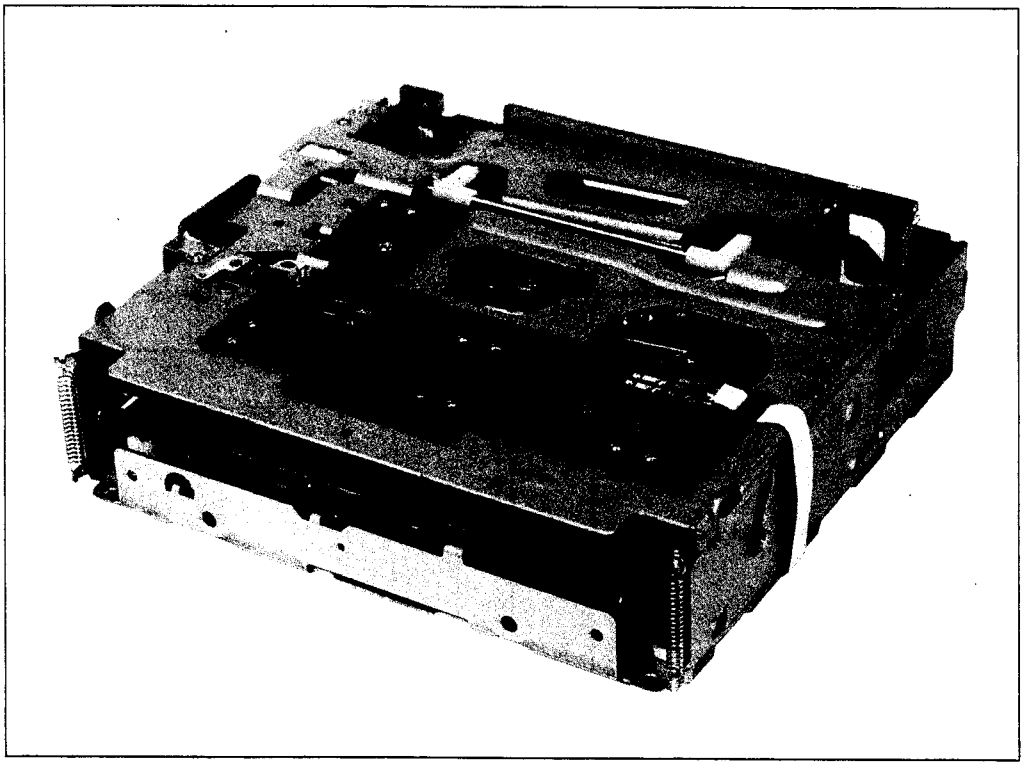
SERVICE MANUAL

CD Player Mechanism

ADDENDUM & REVISED (VI)

● This manual is described on DP24H02F only. The DP24H02F is developed from DP24H02A. For information that is not mentioned in this service manual, refer to the Service Manual • DP-H SERIES-ADDENDUM & REVISED (III) (68E21967S01).

● 当マニュアルはDP24H02Fについてのみ記載しております。又、DP24H02Aがベースモデルとなっておりますので、相違部分のみ記載しております。詳細についてはDP-H SERIES-ADDENDUM & REVISED (III) (68E21967S01) を参照願います。



DP-H SERIES

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CD Mechanism Assembly Parts List

NOTE : The parts is not mentioned, refer to the Service Manual for DP-H SERIES (Part No.68E21967S01).

Symbol No.	Index	Part No.	Description
17		75C80020W01	Damper, DP-H2
70	2-C	43A50683W01	Table, Clamper
or	2-C	43A80217W01	Table, Clamper-S
91	2-A	04S40075G07	Washer, Polyslider (M2.1)
96	4-D	04B41345P52	Washer, Lock (M1.6)
97	2-A	04B41345P34	Washer, Lock (M1.2)

Symbol No.	Index	Part No.	Description
Miscellaneous			
M1302		01V83100W12	Assy., Spindle Motor (2V-90mA)

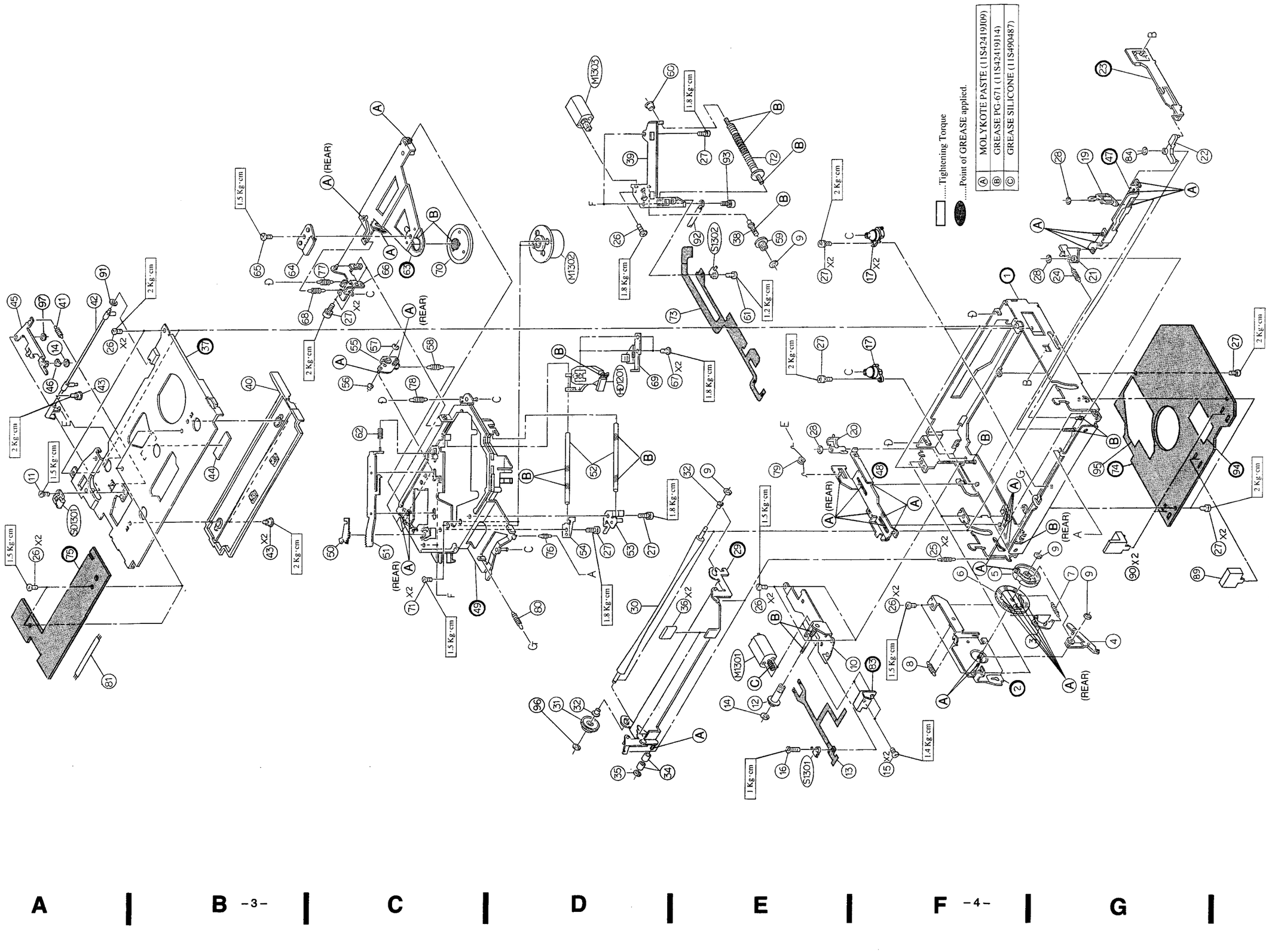
CDメカニズム関係部品表

※ 記載されていない部品については、サービスマニュアル・DP-H SERIES (68E21967S01) を参照願います。

記号	索引	部品番号	部品名	標準卸価格
17		75C80020W01	Damper, DP-H2	430
70	2-C	43A50683W01	Table, Clamper	300
or	2-C	43A80217W01	Table, Clamper-S	230
91	2-A	04S40075G07	Washer, Polyslider (M2.1)	45
96	4-D	04B41345P52	Washer, Lock (M1.6)	45
97	2-A	04B41345P34	Washer, Lock (M1.2)	45

記号	索引	部品番号	部品名	標準卸価格
その他の電気部品				
M1302		01V83100W12	Assy., Spindle Motor (2V-90mA)	---

Exploded View (CD Mechanism)



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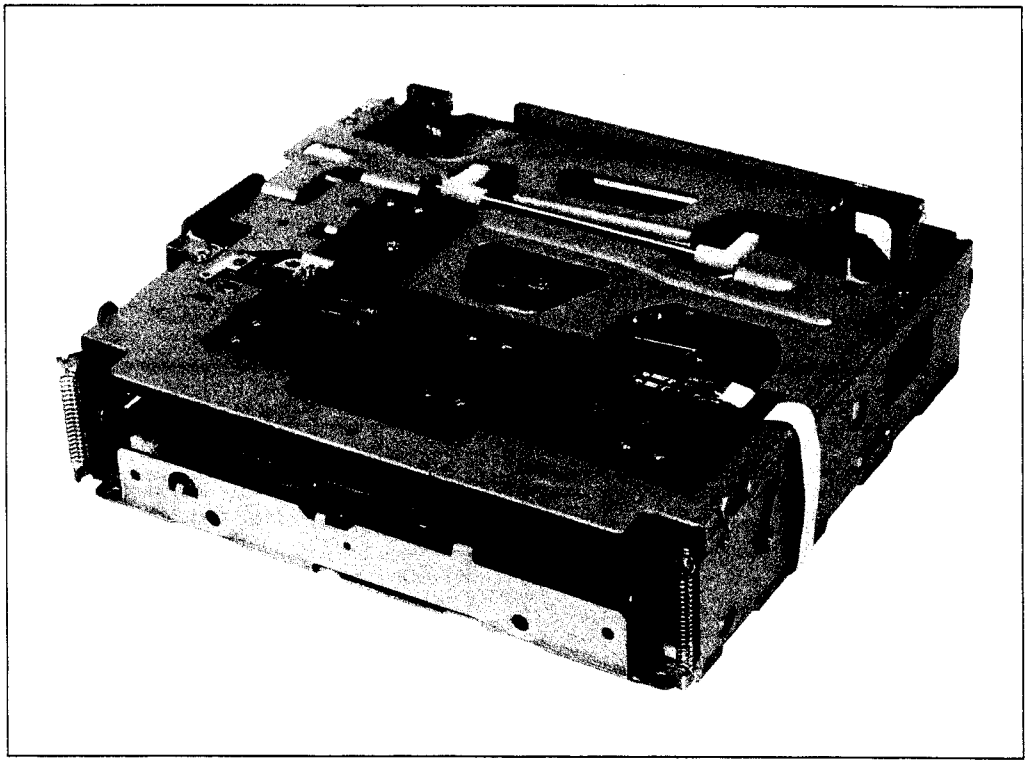
SERVICE MANUAL

CD Player Mechanism

ADDENDUM & REVISED (VII)

● This manual is described on DP23H02A only. The DP23H02A is developed from DP24H02A. For information that is not mentioned in this service manual, refer to the Service Manual • DP-H SERIES-ADDENDUM & REVISED (III) (68E21967S01).

● 当マニュアルはDP23H02Aについてのみ記載しております。又、DP24H02Aがベースモデルとなっておりますので、相違部分のみ記載しております。詳細についてはDP-H SERIES-ADDENDUM & REVISED (III) (68E21967S01) を参照願います。



DP-H SERIES

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CD Mechanism Assembly Parts List

NOTE: For the parts not mentioned, refer to the Service Manual for DP-H SERIES (Part No.68E21967S01).

Symbol No.	Index	Part No.	Description
17		75C80020W01	Damper, DP-H2
24	2-G	41B50978W15	Spring, Pull
42	3-A	45B90927W01	Arm, Stopper Disc-S
70	2-C	43A50683W01	Table, Clamper
or	2-C	43A80217W01	Table, Clamper-S
96	5-D	04B41345P52	Washer, Lock (M1.6)
97	3-A	04B41345P34	Washer, Lock (M1.2)

Symbol No.	Index	Part No.	Description
Miscellaneous			
HD1201	3-D	81B81296W01	Pick-Up Unit
M1302	2-D	01V91400W15	Assy., Spindle Motor (2V-90mA)

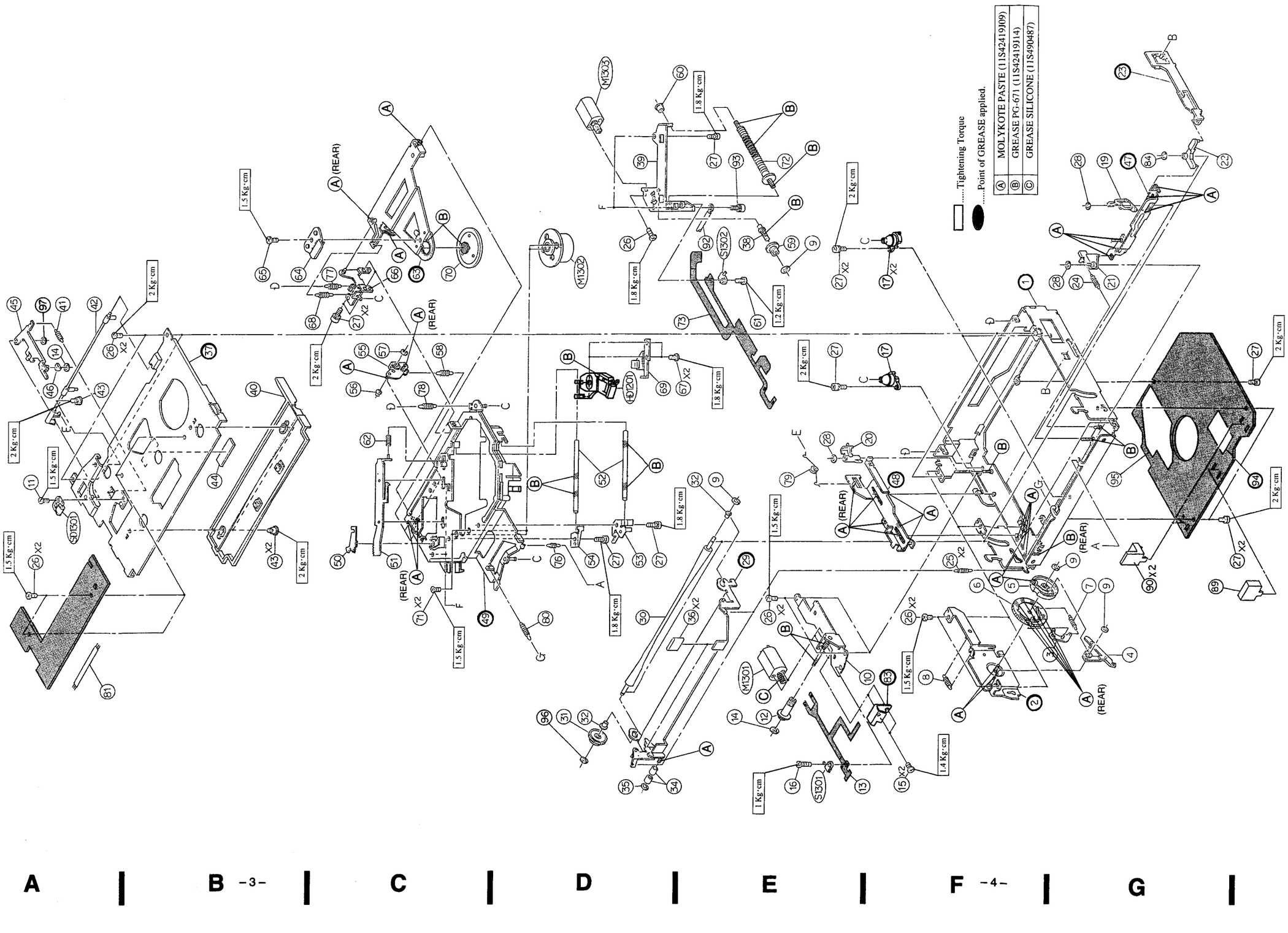
CDメカニズム関係部品表

※ 記載されていない部品については、サービスマニュアル・DP-H SERIES (68E21967S01) を参照願います。

記号	索引	部品番号	部品名	標準卸価格
17		75C80020W01	Damper, DP-H2	470
24	2-G	41B50978W15	Spring, Pull	50
42	3-A	45B90927W01	Arm, Stopper Disc-S	——
70	2-C	43A50683W01	Table, Clamper	330
or	2-C	43A80217W01	Table, Clamper-S	260
96	5-D	04B41345P52	Washer, Lock (M1.6)	45
97	3-A	04B41345P34	Washer, Lock (M1.2)	45

記号	索引	部品番号	部品名	標準卸価格
その他の電気部品				
HD1201	3-D	81B81296W01	Pick-Up Unit	3,520
M1302	2-D	01V91400W15	Assy., Spindle Motor (2V-90mA)	1,350

Exploded View (CD Mechanism)



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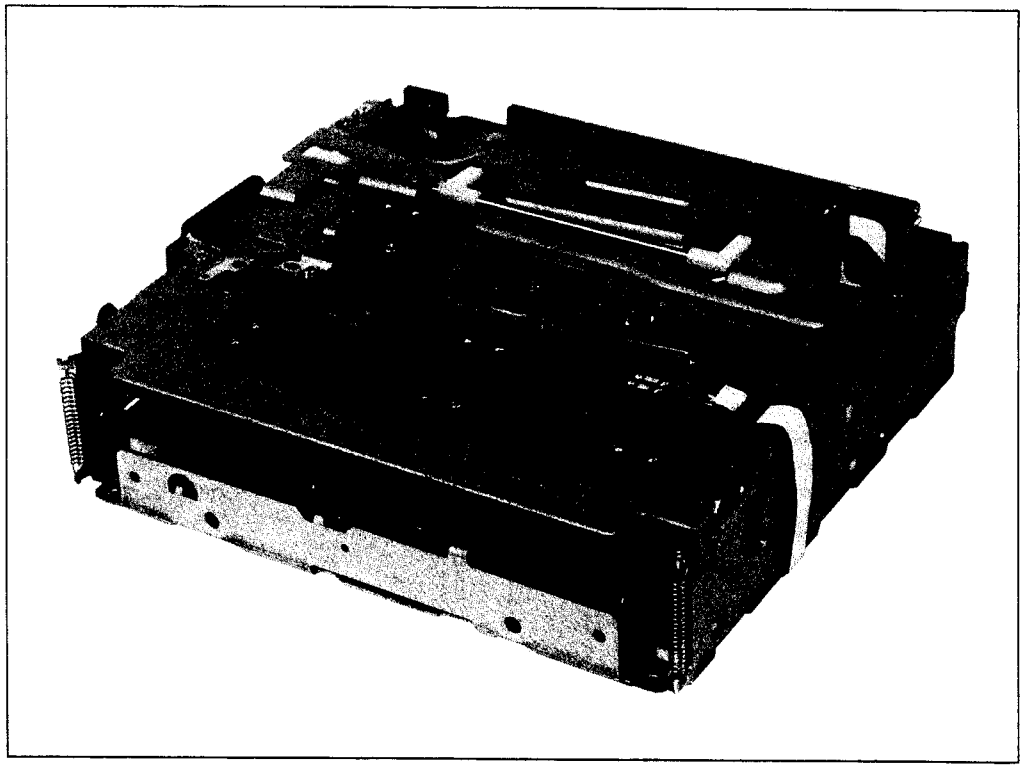
SERVICE MANUAL

CD Player Mechanism

ADDENDUM & REVISED (VIII)

● This manual is described on DP24H090 only. The DP24H090 is developed from DP24H02F. For information that is not mentioned in this service manual, refer to the Service Manual • DP-H SERIES-ADDENDUM & REVISED (VI) (68E23329S01).

● 当マニュアルはDP24H090についてのみ記載しております。又、DP24H02Fがベースモデルとなっておりますので、相違部分のみ記載しております。詳細についてはDP-H SERIES-ADDENDUM & REVISED (VI) (68E23329S01) を参照願います。



DP-H SERIES

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CD Mechanism Assembly Parts List

NOTE : The parts is not mentioned, refer to the Service Manual for DP-H SERIES (Part No. 68E23329S01).

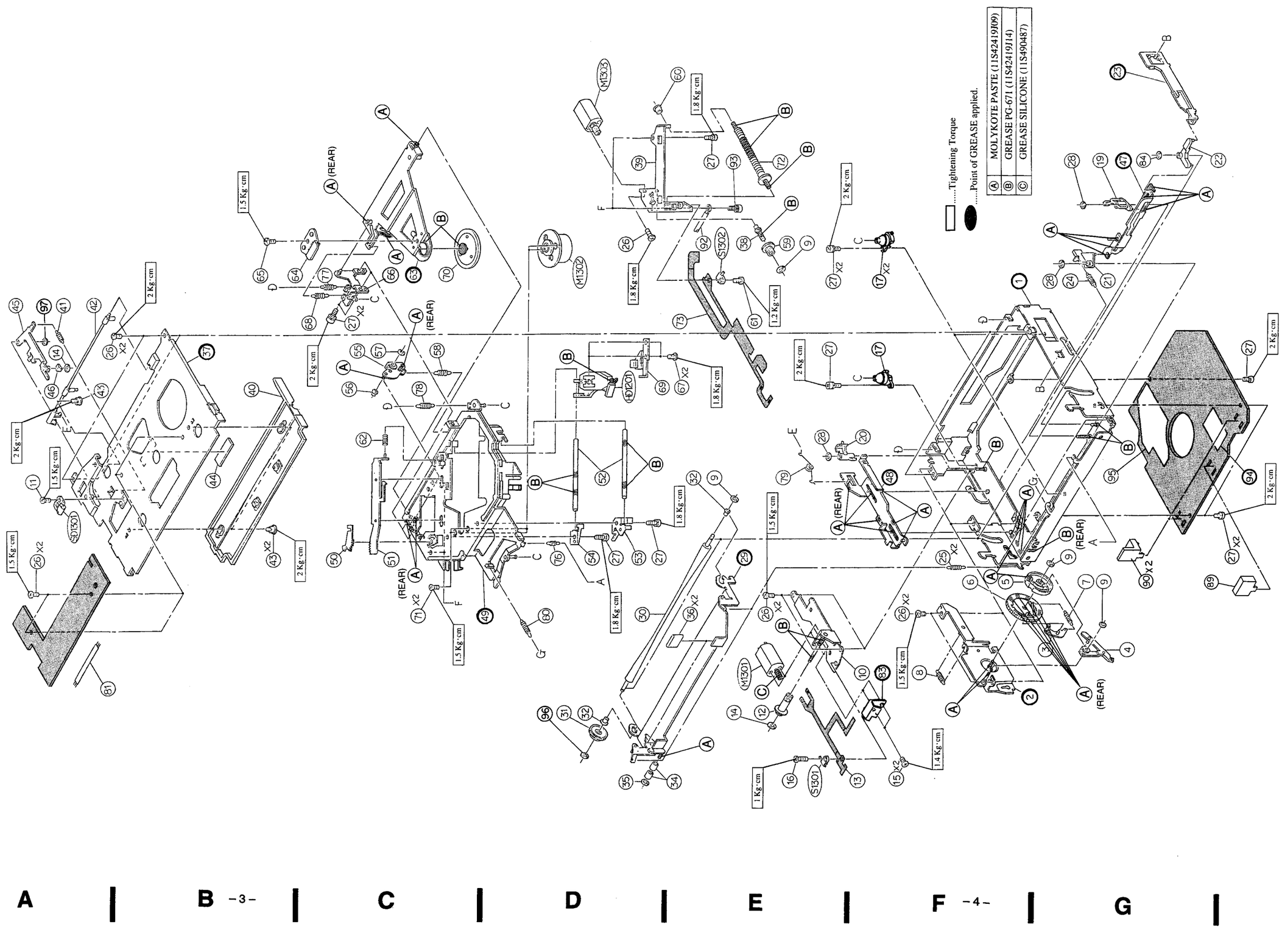
Model	DP-H SERIES			DP24H090		
Symbol No.	Index	Part No.	Description	Index	Part No.	Description
24	2-G	41B50978W01	Spring, Pull	2-G	41B50978W15	Spring, Pull
31	5-D	01T55276W01	Assy., Clutch DP-H	5-D	01T55276W02	Assy., Clutch DP-H
42	3-A	01V53900W76	Assy., Arm Stopper	3-A	45B90927W01	Arm, Stopper Disc-S
91	2-A	04S40075G07	Washer, Polyslider (M2.1)	—	—	—

CDメカニズム関係部品表

※ 記載されていない部品については、サービスマニュアル・DP-H SERIES (68E23329S01) を参照願います。

Model	DP-H SERIES				DP24H090			
記号	索引	部品番号	部品名	標準卸価格	索引	部品番号	部品名	標準卸価格
24	2-G	41B50978W01	Spring, Pull	50	2-G	41B50978W15	Spring, Pull	50
31	5-D	01T55276W01	Assy., Clutch DP-H	400	5-D	01T55276W02	Assy., Clutch DP-H	420
42	3-A	01V53900W76	Assy., Arm Stopper	440	3-A	45B90927W01	Arm, Stopper Disc-S	380
91	2-A	04S40075G07	Washer, Polyslider (M2.1)	45	—	—	—	—

Exploded View (CD Mechanism)



A | B -3- | C | D | E | F -4- | G

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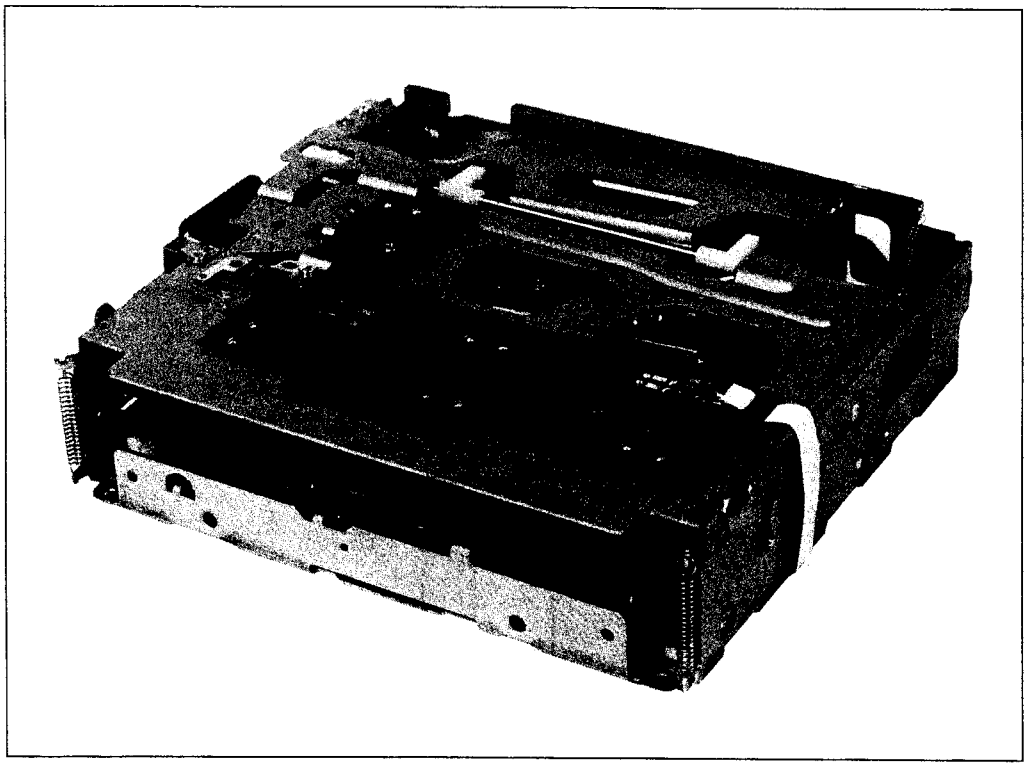
CD Player Mechanism

ADDENDUM & REVISED (IX)

- This manual is described on DP24H09A/220 only. The DP24H09A/220 is developed from DP24H090. For information that is not mentioned in this service manual, refer to the Service Manual • DP-H SERIES-ADDENDUM & REVISED (VIII) (68E25581S01).
- 当マニュアルはDP24H09A/220についてのみ記載しております。又、DP24H090がベースモデルとなっておりますので、相違部分のみ記載しております。詳細についてはDP-H SERIES-ADDENDUM & REVISED (VIII) (68E25581S01) を参照願います。



DP-H SERIES

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Cabinet Assembly Parts List

NOTE : For the parts not mentioned, refer to the Service Manual for DP-H SERIES (Part No. 68E25581S01)

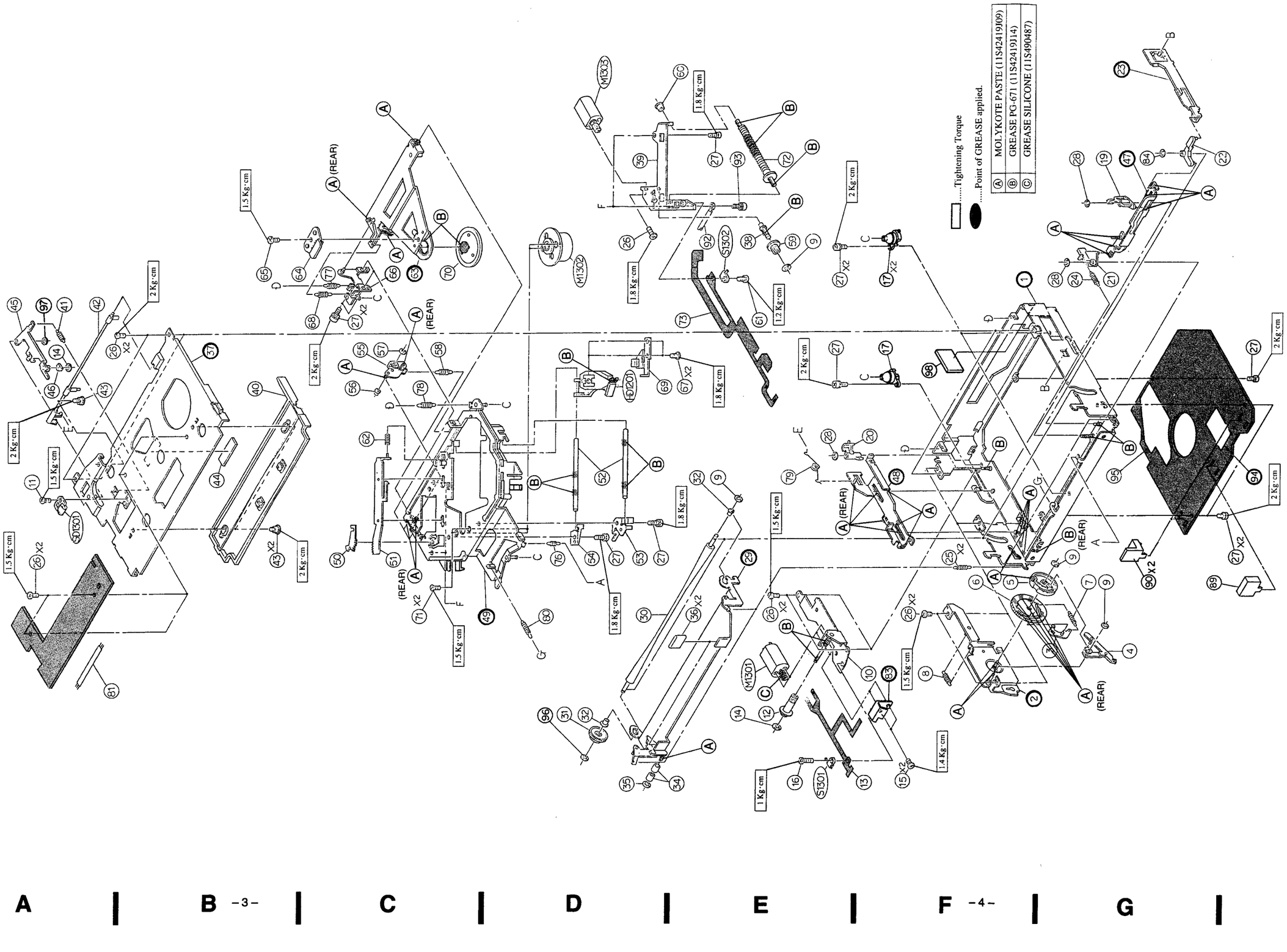
Model	DP-H SERIES			DP24H09A		
Symbol No.	Index	Part No.	Description	Index	Part No.	Description
98		—	—	3-F	14A90967W01	Insulator, Load

キャビネット関係部品相違表

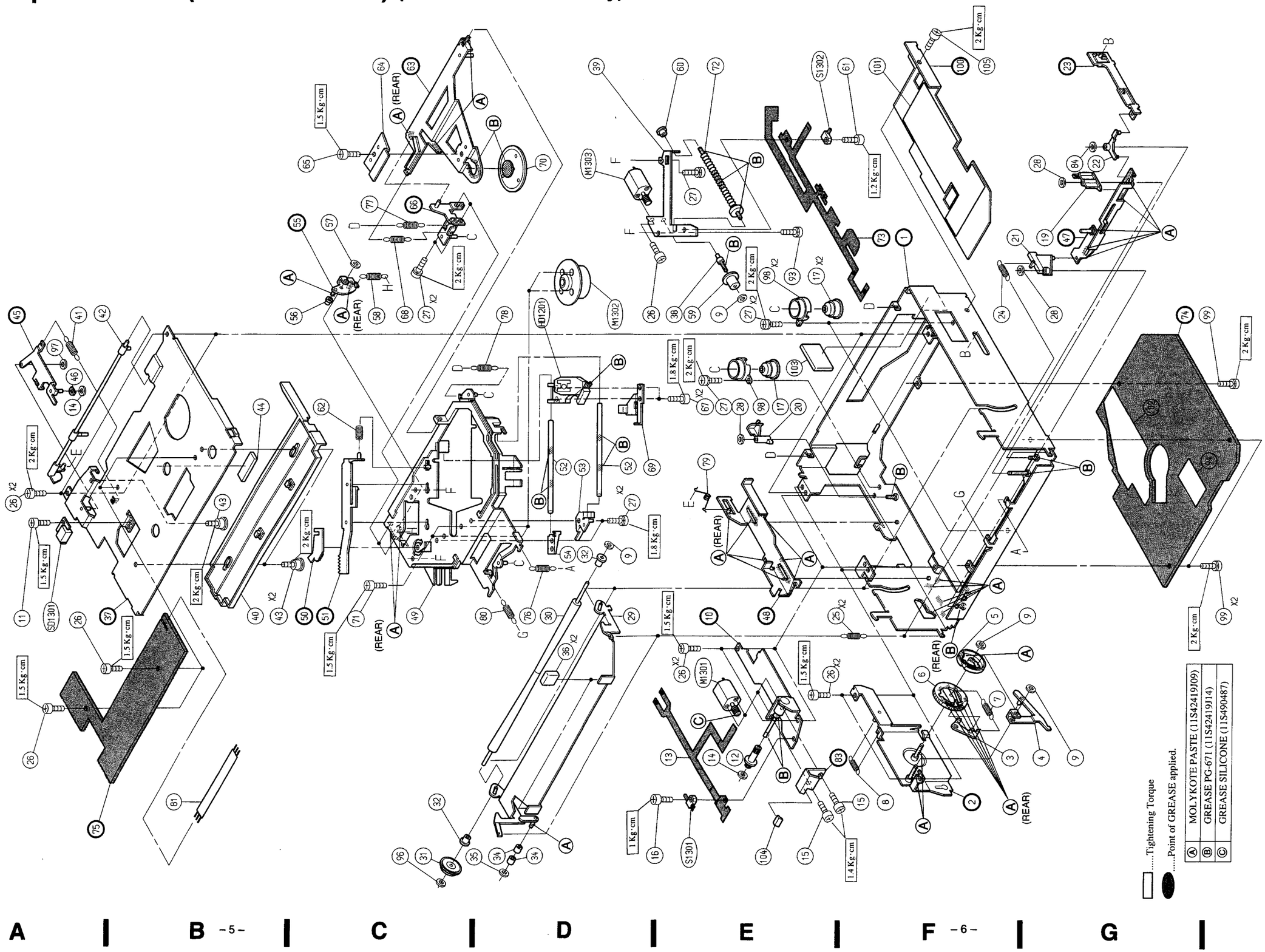
※ 記載されていない部品については、サービスマニュアル・DP-H SERIES (Part No. 68E25581S01)を参照願います。

Model	DP-H SERIES				DP24H09A			
記号	索引	部品番号	部品名	標準卸価格	索引	部品番号	部品名	標準卸価格
98		—	—	—	3-F	14A90967W01	Insulator, Load	80

Exploded View (CD Mechanism) (DP24H09A model only)



Exploded View (CD Mechanism) (DP24H220 model only)



CD Mechanism Assembly Parts List

NOTE : The parts is not mentioned, refer to the Service Manual for DP-H SERIES (Part No. 68E25581S01).

Model	DP-H SERIES			DP24H220		
Symbol No.	Index	Part No.	Description	Index	Part No.	Description
17		75C80020W01	Damper, DP-H2		75B58086W02	Damper, DP-H
31	5-D	01T55276W02	Assy., Clutch DP-H	5-C	01T55276W01	Assy., Clutch DP-H
69	3-D	41A50682W01	Spring, Nut	3-D	41A60629W01	Spring, Nut
72	2-E	01V51800W71	Assy., Shaft Screw	1-E	01V61800W63	Assy., Shaft Screw
89	4-G	15A61057W01	Cover, Photo (A)		—	—
90	4-G	15A61058W01	Cover, Photo (B)		—	—
92	2-E	01T70458F02	Assy., Lug Wire		—	—
95	3-G	14A71175W01	Insulator, Cover		—	—
98		—	—		15A40136W01	Holder, Damper-S
99		—	—		03S38013W27	Screw, Flat (M2X4)
101		—	—	1-F	14A80168W01	Insulator, Plate
102		—	—	3-G	14A71177W01	Insulator, Cover
103		—	—	3-E	14A90967W01	Insulator, Load
104		—	—	5-E	14A90826W01	Insulator, Cover Worm
105		—	—	1-F	03S38013W20	Screw, Pan (M2.6X3)
Miscellaneos						
HD1201	3-D	88T55261W01	Pick-Up Unit	2-D	88T55261W02	Pick-Up Unit
M1302	2-D	01V83100W12	Assy., Spindle Motor (2V-90mA)	2-D	01V73900W62	Assy., Spindle Motor (5V-160mA)
M1303	2-D	01V54100W69	Assy., Sled Motor (3.5V-110mA)	2-D	01V83100W04	Assy., Sled Motor (3.5V-110mA)

CD メカニズム関係部品相違表

※ 記載されていない部品については、サービスマニュアル・
DP-H SERIES (Part No. 68E25581S01) を参照願います。

Model	DP-H SERIES				DP24H220			
記号	索引	部品番号	部品名	標準卸価格	索引	部品番号	部品名	標準卸価格
17		75C80020W01	Damper, DP-H2	450		75B58086W02	Damper, DP-H	600
31	5-D	01T55276W02	Assy., Clutch DP-H	420	5-C	01T55276W01	Assy., Clutch DP-H	400
69	3-D	41A50682W01	Spring, Nut	220	3-D	41A60629W01	Spring, Nut	510
72	2-E	01V51800W71	Assy., Shaft Screw	280	1-E	01V61800W63	Assy., Shaft Screw	850
89	4-G	15A61057W01	Cover, Photo (A)	50		—	—	
90	4-G	15A61058W01	Cover, Photo (B)	45		—	—	
92	2-E	01T70458F02	Assy., Lug Wire	60		—	—	
95	3-G	14A71175W01	Insulator, Cover	100		—	—	
98		—	—			15A40136W01	Holder, Damper-S	70
99		—	—			03S38013W27	Screw, Flat (M2X4)	45
101		—	—		1-F	14A80168W01	Insulator, Plate	120
102		—	—		3-G	14A71177W01	Insulator, Cover	110
103		—	—		3-E	14A90967W01	Insulator, Load	80
104		—	—		5-E	14A90826W01	Insulator, Cover Worm	60
105		—	—		1-F	03S38013W20	Screw, Pan (M2.6X3)	45
その他の電気部品								
HD1201	3-D	88T55261W01	Pick-Up Unit	3,350	2-D	88T55261W02	Pick-Up Unit	3,400
M1302	2-D	01V83100W12	Assy., Spindle Motor (2V-90mA)	1,360	2-D	01V73900W62	Assy., Spindle Motor (5V-160mA)	2,380
M1303	2-D	01V54100W69	Assy., Sled Motor (3.5V-110mA)	1,420	2-D	01V83100W04	Assy., Sled Motor (3.5V-110mA)	1,730